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THE CULTIVATOR.

"TO IMPROVE THE SOIL AND THE MIND."

Meeting of the State Agricultural Society.

THE proceedings of the New-York State Agricultural Society at its annual meeting in this city on the 10th and 11th of February, will be found in the present number of the Cultivator. The meeting was very respectable in numbers, and the best spirit prevailed among the gentlemen present. All seemed determined the Society should go on, and go on effectively; and such we trust will be the result. We have space only to call the attention of the reader to the new and more efficient organization of the Society, and the resolution adopted making it incumbent on the Society to hold annual meetings or fairs for the exhibition of cattle and other animals, farming implements, products, &c. the time and place to be designated by the Executive Committee. There can be no question that the successful progress of this Society would prove of immense advantage to the state, and there can be no good reason why the Empire State should not have an Agricultural Society on the most liberal and efficient scale. We are confident the funds can be raised for the annual and semi-annual fairs, and thus an impetus be given to the cause of agriculture throughout the state. On the whole we think it right to expect much from the energy which it is hoped the new board of managers will infuse into the affairs of the Society, and that its friends in all parts of the state will feel the importance of giving it their effective aid and support. The time and place of the Annual Fair, with the list of premiums, will be fixed upon at as early a day as possible, that the friends of agriculture throughout the state may fully understand the matter.

American Journal of Science and Arts.

WE perceive in the latest number of this valuable Journal, that a change in the terms of publishing, most favorable to those subscribers who receive the work by mail, has been made, by which those subscribers who send in their names and pay in advance, receive the work *free of postage*, thus reducing its cost some one dollar and twenty or thirty cents.

The Journal of Science, which has been so ably conducted by Prof. SILLIMAN, has few equals in merit in the world, and no superior; and has become so identified with the progress of science all over the globe, and so well known in all countries, that its possession may be considered necessary to every one who takes an interest in the rapid advance and surprising discoveries of science. Some of the most valuable papers on the subject of agriculture yet published in the United States, have appeared in the Journal, and there is scarce a subject of interest in any branch of Physical or Natural Science which does not here find its appropriate notice and place. The Journal has done more to make the science of this country known in Europe, and consequently to elevate the character of the United States among foreigners than any other American work, and it is one of which every citizen of this country may justly be proud. It is published quarterly, making two handsome octavo volumes annually, illustrated with drawings and engravings, when the subject treated requires them, at the price of six dollars a year; (postage being now deducted.) We take a pleasure in inviting the attention of the readers of the Cultivator to this Journal, and hope that such of them as wish to possess the most complete record of the progress of science extant, will send in their names as subscribers to Silliman's Journal at once.

Legislative Aid to Agriculture.

WE are gratified to learn that the Agricultural Committee of the House of Assembly have reported a bill for the benefit of Agriculture. Its provisions are such as will, we are inclined to believe, meet the approbation of the great mass of our farmers. It appropriates the sum of seven thousand dollars, to be distributed to the County Agricultural Societies in the ratio of $50 to each member of Assembly, and the balance of the appropriation, $600, to the State Agricultural Society—the money not to be paid to the several Societies until they have raised an equal sum. If this bill shall be passed, and we cannot doubt but what it will be, it will give a new and powerful impetus to agricultural improvement. Small as the sum appropriated is, it will have the effect to bring into existence associations for the advancement of agriculture in all our counties, and their action will be extended to every town, so that, more or less, every individual may participate in the benefits to be derived from these associations.

"Low's Illustrations."

WE have received the first four numbers of Prof. Low's splendid "*Illustrations of the Breeds of British Animals*," a series that in its progress can scarcely fail to throw much light on the origin and improvement of the various races of domestic animals in Britain; an inquiry scarcely less interesting here than there, as it is from the same source our domestic animals are derived. The Illustrations is a magnificent work in folio, the numbers published every two months, each containing four engravings of the folio size, of some of the most distinctive races of animals of the older breeds, most beautifully drawn and colored from life. We think this method is a very good one, as it will show more clearly than any other the improvements which have been effected in the breeds, and the sources from which the improvement has been derived. The letter press description is by Prof. Low, and his extensive acquirements, the great advantage he enjoys from his position, and his intimate acquaintance with the subject on which he writes, gives the greatest assurance to the breeder or the agriculturist, that the opinions expressed may be fully relied upon. The publication price of the work is one guinea a number. Of the numbers before us, No. 1, is devoted to the Ox—No. 2, to Sheep—No. 3, to the Hog—and No. 4, to the Ox.

It is impossible to look over the portraits of some of the original breeds here given, without being struck by the development of qualities that have given the greatest value to some of the improved breeds. Thus it is well known (see Cultivator, vol. 7, page 94,) that the present beautiful Short Horns are the result of a successful cross of the Durhams and Galloways, effected by Mr. COLLINGS. Now we think no one can look at the Galloway heifer in one of these engravings, without perceiving at once the origin of the square form, heavy quarters and fine points, which are so characteristic of the Improved Short Horns. The color of the Galloways in the Illustrations is indeed black, but the cross was effected with a *red* Galloway cow, which may account for the product of the cross being free from all colors excepting white and red.

So with the Hog: no one can look at the figure of the Siamese sow given in this work, and compare it with the Berkshire in the same number, without tracing at a glance those peculiar qualities, the union of which render the improved Berkshire the most valuable breed of the age. The clean head, short ears and neck, round chest, and heavy hams and shoulders, are those of the Berkshire mainly, while the color, quiet nature, short legs, and aptitude to fatten, have in a great degree been derived from the Siamese or China pig, for, according to Prof. Low, these are identical. We believe an examination of these portraits would have materially aided our southern and western agricultural friends in disposing of that vexed question, the color of the Berkshire pig. Prof. Low has given the original English Berkshire, a sandy color, dashed with black spots, and the Siamese is perfectly black. That the improved Berkshire should have white feet, and that invariably or nearly so, is seen from the fact that in both figures, *all the feet* and part of the leg is white; even the white hairs in the tail, which have elicited so much criticism, are not wanting. Of the Chinese or Siamese, Prof. L. says—"The individuals are of small size, and have a cylindrical body, with the back somewhat hollow, and the belly trailing near the ground in consequence of the shortness of the limbs. The bristles are soft, approaching to the characters of hair; the color is usually black, the skin externally of a rich copper color." Again, "the varieties of this widely extended race, with which we are chiefly conversant in this country, are derived from China; they have usually the dark color characteristic of the race, but they are often also white." Of the Berkshire, he remarks, "Many of the modern breed are nearly black, indicating their approach to the Siamese character, and sometimes they are black broken with white, showing the effects of the cross with the white Chinese." To us, the black, or nearly black, color of the Improved Berkshires, with the sandy tinge of the extremities of their hair occasionally, and their white feet, appear satisfactorily accounted for by Prof. Low's statements and figures. That the color should not have been black, or nearly so, would have been contrary to the well known results of crosses in other animals, and to what must have been rationally expected here.

Imported Seeds and Implements.

WE have received from JAMES RONALDSON, No. 200 South Ninth-st., Philadelphia, a pamphlet containing a list of grains, grass seeds, implements, &c. imported by him from England and Scotland for the use of American farmers. Among these we notice the Oxford White Prize, Pomeranion Red, and Golden Drop Wheat; Scotch and Chevalier Barleys; Hopeton Oats; Rye; Rye Grass; the celebrated Don Potatoes; Sugar Beet; Weed hooks; Hand Mills; Subsoil Plow, &c. Mr. Ronaldson has also brought a great variety of articles in extensive use abroad, as examples to artists in this country, and as worthy of introduction in some of the many processes connected with agriculture.

We think the undertaking of Mr. Ronaldson a praiseworthy one. There can be little doubt that some of the new varieties of grains that have been introduced by either skill or accident into European agriculture will be found very valuable in this country, and well worthy the attention of our farmers. Some things may not be adapted to our climate or our culture; there will be doubtless some failures, but the introduction of a single valuable grain, or grass, or root, into cultivation would compensate for many such. Letters, *post paid*, addressed to Mr. R. will receive prompt attention.

Agricultural Address.

WE have received by the kindness of our friends of the Kentucky Farmer, the address of the Hon. CHILTON ALLAN, delivered before the Kentucky State Agricultural Society, at its annual meeting in January. The main proposition of Mr. Allan in his Address, is that "the direct action of government should be brought in aid of individual industry, in promoting the great interest upon which our individual and social prosperity so much depends."

This position is most ably illustrated and enforced, by a reference to the history of agriculture in past ages, its present condition in this country, and the vast importance it has in connection with the prosperity of the United States. We have room for only a single extract:

"I have satisfied myself by much observation and reflection of the truth of the following statements:

1. That at least two-thirds of our arable land is annually becoming poorer by unskillful husbandry.

2. That it is practicable to make our lands annually more fertile.

3. That both our arable and pasture lands may be made to produce twice as much as they have done.

4. That at an inconsiderable expense the cattle in our state can be made worth annually upwards of four millions more than they have been.

5. That with the same amount of food, our swine may be annually advanced in price $2,000,000.

6. That there is yet in use among us, in a large part of the state, very imperfect agricultural implements.

7. That two men with the best plows can perform more work in a day, than three with those in common use. * * * *

There are 490,613 cattle in the state, their average value is but $5.87, while the average value of these in three counties that have improved their stock is $15. The aggregate value of the whole is but $2,882,218, but if all the counties had given the same attention to improving the stock as Fayette, Bourbon, and Clarke, the aggregate value would have been $7,359,195. The experience of the few counties that have given their attention to swine, has demonstrated that the improved breeds can be brought to maturity upon half the food required by the old sorts; and a proper rotation of crops on exhausted fields, has restored them to their primitive fertility."

Kentucky has a most fertile soil; sons that always make their mark in whatever they undertake; and if the impulse already given to her agriculture is increased or perpetuated, the best results are sure to follow.

WORK FOR THE MONTH.

System.

SYSTEM is as essential in farming, as in any other occupation of life. Let the farmer, therefore, who has never reduced his methods to order, commence now; let him examine his farm, make a map of it, number each field, and having provided himself with a memorandum book, (a few sheets of paper doubled will do, if a better one cannot be had,) and a regular debt and credit kept with each field. Charge to the field the manure, labor, seed, &c., and credit to it the crop taken from it, whether of grass or grain. It is only in this way that any thing like an estimate of profit or loss can be correctly formed. In another part of your book, enter in separate columns all the cash received or paid out by you. Look it over occasionally, and see if any purchases have been improvidently or needlessly made. This will be particularly necessary if you are in the habit of purchasing articles on credit, one of the very worst practices in our opinion, into which a farmer can fall.

Fruit.

March, of all the year, is the best for securing cions with which to improve our fruit orchards. Where the trees from which the desired grafts are to be taken stand in the same orchard or neighborhood, the cutting may be delayed until the time of setting arrives; but as a general rule it is far better in all cases to cut them before the spring circulation of sap commences. Budding in the cases of peach, plum, cherries, &c., is more commonly practiced than grafting; but, unless in small trees, grafting is better for the apple. We think there is too little attention paid to fruit among farmers. When it is recollected that a good fruit tree costs no more than a poor one, that it occupies no more space, and that for eating or for feeding, the fruit of one is infinitely superior to the other, the general prevalence of inferior trees is surprising, and can only be accounted for, except on the supposition of extreme negligence. A good paste may be made for grafting by melting together three parts of beeswax, three of rosin, and one of tallow; and working them together into rolls in cold water, after the manner of shoemaker's wax. Some place the wax directly on the tree; but the better way is to spread it on common cotton, and then it may be cut into such strips or pieces as are wanted. Warmed in the sun, or by the hand, they are a much neater as well as better application than the old fashioned method of applying the paste directly. Those who are intending to graft next spring, will do well to prepare a quantity of cotton cloth in this way now, or while there will be more time than in the hurry of spring work.

Maple Sugar.

March is the month for making maple sugar; and no one who has a sufficient number of these valuable trees should neglect to supply his family with sugar from them. The quantity of maple sugar made in the United States, when unfolded by the Agricultural census, will surprise all. The full returns are not yet made out; but in many districts of the northern States it is ascertained to amount from 40 to 80 pounds to each individual. To make *good* sugar, the greatest neatness in every thing is requisite. The sap must be boiled as soon as possible after it is drawn from the tree, as delay renders it partially sour, and prevents the syrup graining. If from any cause the sap when gathered, cannot be boiled at once, a quart of lime to a hundred gallons should be added, which will prevent the acidity, and render the formation of good grained sugar certain. The sugar maple is one of the most beautiful as well as valuable of our forest trees; and we think that for ornamental purposes it is exceeded by none. If therefore each farmer would plant a few hundred trees, either as a grove, or by the road side, but a few years would elapse before he would find himself independent of the Brazils or Cuba for one of the most indispensable articles of domestic consumption.

Preparation.

In the field, little or nothing can be done in this month to advantage, especially at the north; but much may be done to forward the labors of the year and ensure success to the farm husbandry. If it is not already done, let the farm implements be thoroughly examined and repaired; a list of such as are to be purchased made out; the seeds necessary for the season secured; and in short let every thing be done now, that must be done now or hereafter. True agricultural forethought is essential to the proper employment of time.

Care of Animals.

The stock of the farmer requires his utmost care and attention during this month. In the severe climate of the north, animals are more liable to diseases in the spring months than in any other; and as it is besides the usual time of bringing forth their young, additional reasons for attention are furnished by this fact. Cows should have daily supplies of bran or shorts in water, with roots if they are to be had, for some time previous to dropping their calves, as good nutritive food gives them strength, and besides secures a better flow of milk. Sheep now, especially the ewes, should have a good supply of turneps or other roots daily, with a good portion of salt, and, if not as necessary now as in the summer, an occasional covering of the trough with tar, will conduce to health. On the treatment of his animals much of the farmer's success in his business is depending, and it is one of those things to which his attention cannot be too frequently urged. Every dairyman is aware of the great difference in profit there is between a cow that is in good condition in the spring, and one that does not recover from the effects of the winter until the summer is half past. So with sheep. A flock of well kept ewes will raise more and better lambs; and their wool will be ten per cent better than that from half starved, weak and feeble animals.

Sowing Grass Seeds.

If there is one point of husbandry more than another in which farmers are generally defective, it is the niggardly way in which they use grass seeds in their tillage. If any seeds are sown, not more than half the quantity required is often used, the fields are left bare, and the unoccupied ground becomes a fit place for the vile weeds that are ever ready to spring up, where the husbandman does not anticipate them, by giving the earth something more valuable. *Something* must grow on our rich lands; it remains for the farmer to say whether the product shall be valuable or useless; whether it shall be the grasses, clover, &c., or Johnswort and daisies.

Plaster.

Let a good stock of this invaluable aid to the farmer, be laid in this month, if it has been neglected to this time. Plaster alone will not restore exhausted lands, or prevent the deterioration of others; but applied to clover in a rotation of crops or to meadows, it is of the greatest importance to the farmer. Some have apprehended that its use was injurious; but on some of our best cultivated districts fifty years experience has shown that such apprehensions are groundless.

ANSWERS TO INQUIRIES, &c.

Thin Rind Hogs.

MESSRS. EDITORS—I should be pleased if you would give us some information respecting the hog called with us the "thin rind hog," as I do not recollect that this breed has been noticed in the Cultivator. The thin rind hog has a small head and ears, is straight in the face, short in the legs, and in other respects is very well proportioned. There are a few of them in this county, and I have purchased two with an intention of improving my stock of pigs. Those that have tried the breed are very well satisfied with them. JOHN YOUNG.

Iredell Co. North Carolina.

The hogs alluded to by our correspondent, are doubtless the breed called the "Norfolk Thin Rind," and were introduced into New-Jersey in 1830, by H. Degroot, Esq. of New-York. Mr. Townsend of New Haven, obtained some of them, and in 1834, he sold numbers of them to go to the Middle and Southern States. They are doubtless a valuable breed, and very far superior to the old breeds so common in this country. Mr. Barnett of New Haven, killed a pig of this breed, lacking one day of nine months old, that weighed 360 lbs. The Norfolk has however, generally yielded to the Berkshire both in this country and in England, although in many of the most essential points, they much resemble each other.

Lime, Apple Trees, &c.

MESSRS. EDITORS—As I wish to try an experiment in liming land, you would oblige me by giving in your pages a description of the cheapest and most efficient mode of burning lime, and also your opinion of its value if applied to ground intended for corn. Also, whether apple-trees of a small or medium size blown out at root last spring, yet some of the roots remaining in the ground, and the others mostly green, can be topped, replaced and grafted with an assurance of doing well afterwards, or will their place have to be supplied with new ones?

Greenville, Tennessee. E. LINK.

Lime is a valuable manure, and without its presence in some form in the soil, there are some plants that will not succeed. The easiest way of making some lime for an experiment, where wood is plenty, would be to make, as is often done, a pile of hard wood logs, and on the top of this spread the limestone broken small. The heap is then fired, and when burned out the limestone will in most cases be ready for use. This is a barbarous practice, however, and where much lime is wanted, regular kilns must be used, of which figures and descriptions have been given in former volumes of the Cultivator (VI. 153.) The best method of using it for corn has been to make it into a compost with manures, vegetable mold, swamp muck, &c., and apply this to the soil before planting, either by spreading over the surface, or by depositing it in the hill. In this way, from fifteen to twenty bushels will be sufficient.

Apple trees in the condition spoken of by our correspondent, may doubtless be preserved in the manner alluded to by him; but grafting would not be apt to succeed if performed before the roots had obtained firm hold of the ground, and the circulation of the sap become vigorous. If good trees from a nursery were at hand, we should plant anew; but if not, or if any of the trees were of a particularly valuable kind, we should restore and secure them in their former position, until by the aid of new roots their former hold on the ground could be regained.

The picture given by our correspondent of the agriculture of that district, is not very flattering, but if with their fine climate, and excellent soil, they will pay more attention to the growth of grasses and roots, introduce the Berkshires and the Short Horns, make more manure and practice the scourging system of cultivation less, and that of rotation more, they cannot fail of all the success they can reasonably desire.

Hatching Chickens.

"A SUBSCRIBER" at Newburgh, N. Y. who wishes for more information respecting the "Eccaleobion," noticed at number 1, vol. 7, of the Cult. is referred to the last volume of *Chambers' Edinburgh Journal*, for a full account of the hatching process; in the mean time we condense from that article such parts as may best meet his wishes.

The "Eccaleobion" at Pall Mall, London, is a room, on one side of which is a large oblong case placed against the wall, divided into eight parts, each one of which is warmed by steam pipes, and which are used for hatching the eggs. These divisions are exposed to view by means of glass doors. The bottom of these boxes or parts, and indeed the whole is lined with cloth, and is covered with eggs lying at a little distance from each other. There is a jug of water in each part to preserve a proper degree of moisture to the air in the divisions. The meaning of having eight boxes, is to insure a batch of chickens every two or three days. Each part holds some two or three hundred eggs, or about two thousand in the whole. From twenty-one to twenty-three days are required to hatch the eggs, and as these are purchased in the markets, from one-third to one-half prove worthless. None but new eggs should be used for the Eccaleobion.

When the chickens appear, they are not immediately removed from the oven, but remain a few hours until dry, when they are taken from the oven and put into a glass case or box, made shallow and the sash lid easily removable. They are not fed for twenty-four hours after hatching, and the material then used is a coarse meal or grit, which they pick up with great eagerness, instinct in this case supplying the want of the mother. They are kept in this case two or three days when they are put into divisions on another part of the floor of the same large and warm apartment. At dusk they are put into a coop or box with a flannel curtain and covering, where they rest with as much quietness as under the wing of the mother. In the morning they are turned into the yard, which is cleaned and strewed with seed. When three weeks or a month old they fetch in market one shilling each. It thus appears that all that is necessarry to form a chicken establishment is suitable rooms, a steady supply of the proper heat, fresh eggs, and constant attention.

Diseases of Swine.

MESSRS. EDITORS—Is there no remedy for diseases in swine? I have lost 20 valuable pigs in the course of the last 6 months, by blind staggers, consumption, (sometimes with and sometimes without cough,) obtruding of the rectum, and many without apparent cause. I have looked to books in vain for information. Last week three beautiful healthy Berkshire pigs, as handsome as I ever saw, and two emaciated, unhealthy animals, in three different pens, were attacked on the same morning, and all the remedies known, which I considered as mere quackeries, were resorted to, and in a few hours some, and in 24 hours, *all* fell victims to it. I wish every man that takes the Cultivator, would send all his pig and cattle remedies for general condensation and arrangement, and see if we can learn any thing by it. I conceive the appointment of scientific men by the State to note the different diseases and experiments for cures, would be of more service to us, than the bestowal of the same amount of legislative aid in any shape whatever. R. L.

We have found charcoal one of the best preventives of disease in swine. They will eat it freely, if placed within their reach, and we have never known hogs attacked with disease when occasionally fed with it.

Disease of Sheep.

MR. CLARKE of Chenango Co., inquires respecting a disease of his sheep new to him, and which he thus describes: "First apparent symptom of the complaint, a severe teasing cough, next a rapid loss of flesh, and in a few days, death; followed in an hour by a mortification around the head and shoulders. It has as yet been confined to my lambs, of which I have lost 8 out of 126, and some 20 more have been attacked by the cough."

The disease of which our correspondent speaks, is fortunately a rare one in this country, and is not indeed common in England. It is known by the name of *Peripneumonia, coryza, glanderous rot, inflamed lungs*, &c., and the general symptoms of cough, stoppage of the nose, inflammation of the throat and bronchial tubes are in the main the same; the violence and fatality of the disease is very different in different seasons or cases. It generally occurs from the exposure of the animal to intense cold or sudden chills, after having been heated, but it sometimes appears as an influenza or epidemic without any readily assignable cause. According to Blacklock and Youatt, if the cough is severe and the fever high, purgatives and bleeding must be resorted to in the beginning of the disease, and then ten grains of the following powder, dissolved in a tea cup full of warm water may be given:

"Powdered digitalis, half a drachm;
Tartarized antimony, fifteen grains;
Nitre, two drachms."

"Rub well together, and divide the whole into fifteen

powders. Half an hour after a powder has been given let the animal have a bason of warm gruel, and in six hours repeat the powder, if the symptoms are not considerably abated." In the epidemic form it is a dangerous disease, and it does not seem to be fully decided whether it is contagious or otherwise.

Straw.

MESSRS. EDITORS—In looking over the 4th volume of the Cultivator, I find an article from Chaptal's Chemistry applied to Agriculture, which contains the following sentence: "I do not believe that there is in the whole vegetable kingdom an aliment affording so little nourishment to plants or animals as the dry straw of grain; serving only to fill the stomachs of the latter; and furnishing to the former but about one hundredth part of its weight of soluble manure." I am in the habit of transferring annually large quantities of injured straw to my farm pens, not merely for the comfort of my stock, but chiefly from the impression that the straw thus brought into contact with the stronger manures will greatly increase the quantity and value of the general bulk. If the scientific author is correct, however, in this opinion, I have but little reason for continuing that course, as the straw could be removed at once to the field which it is designed to benefit, with much less labor and trouble. I should like your opinion on this subject."

We have long been aware of this opinion of Chaptal, but our experience has led us to distrust the soundness of his conclusion. The chemist, however skillful he may be, is very apt in his laboratory to overlook or not understand some of the processes used by nature to accomplish its purposes. It has appeared to us that when nature has once formed a straw out of nutritive matter, she can decompose and reconvert that substance to nutritive matter again, and actually does it, although the process cannot as yet be accomplished in the chemist's laboratory. Both straw and wood have since the time of Chaptal been converted into most nourishing bread, and the solulable product of straw has been increased to some 14 per cent by Madden. While, therefore, we do not consider straw as very valuable as a manure compared with some others, we have always preferred using it in our yards to applying it directly to the soil for two reasons; it furnished a litter for the yards that renders the animals more comfortable, and is trodden and made fine by the feet, a process greatly aiding its decomposition; and it seems to absorb and retain a large part of the most valuable part of the manures in the yards, (the liquid and soluble parts, salts, &c.) which would otherwise be in a great degree lost to the farmer. For these reasons we prefer that our straw, even if the animals were not benefited by it as a food in the least, should pass through the cattle yards and the pig pens before it goes to the field.

Beet Sugar.

Mr. STANLY of New Milford, inquires as to the easiest method of making beet sugar, or where directions for the manufacture can be had.

The simplest mode of manufacture we have seen, may be found at page 167 of the last volume of the Cultivator; but the most ample, and we presume correct description of the process we have yet seen published in this country, is to be found in Mr. Child's book, which can doubtless be had in any of the cities.

Change of Timber and Soils.

MESSRS. EDITORS—Some thirty years since I resided in a part of Chenango county where the ridges that bounded the valleys were covered with pine, on a soil deemed capable of producing nothing more valuable than whortleberry bushes and sweet fern, and which could not be made to repay the expense of cultivation. At that time, some of these pine ridges in a very dry season, were burned over with a conflagration truly dreadful; every thing on the surface that could burn was converted to ashes. An entire new growth of timber speedily sprung up of maple, beech, some oak, &c., but no pines. A short time since, I had occasion to revisit that neighborhood, and found the farmers were clearing the second growth of timber, and were putting in fine fields of wheat on these once pine hills, it being their best soil for growing that grain. Now I wish to know the nature of the changes which took place to destroy the tendency to the growth of pine, and fit it for the culture of wheat. A FARMER.

All soils where pine grows spontaneously, is found to abound in acids, whether derived from this substance which is known to exist in the leaves of this tree or originally in the soil, is not certainly known; but it is found that close pine lands on first being cleared, rarely produce much grain, and all ordinary vegetation is usually scarce in such places. All close timbered hemlock lands are similarly conditioned. There are two ways in which this acid may be neutralized or destroyed; the first by the application of lime, and the second by burning over the vegetable matter on the surface of the earth; the alkaline matter thus formed, would have the effect of neutralizing the acid of the soil, inducing a new variety of vegetation, timber trees or plants; and thus preparing it for crops to which it was once unfit. It is well known that the practice at the south is to clear the pine lands, cultivate them with tobacco or cotton as long as they will pay the cost of culture, and then abandon them. They are speedily covered with a dense growth of other kinds of timber, which in its turn is again cleared for cultivation. Repeated cropping the ground in this case seems to have done what burning over did in the other. The complete change of timber that thus takes place on lands, and the manner in which they may be said to be seeded, constitutes one of the most curious questions in the whole range of vegetable physiology, not to say the most perplexing.

Saw Dust.

J. S. of Little Britian, Pa., who is the owner of a saw mill, wishes to know if saw dust can in any way be converted into manure, so that the cost of doing it will not be greater than the value of the manure. If he has not abundance of straw, he may use saw dust to advantage as a litter for stables, piggeries, &c., where, by absorbing the liquids of such places, it will make a valuable addition to the dung heap. It is used in this way by the Shakers at Canterbury, N. H., who think it preferable to straw as a litter for stables.

Canada Thistles.

Mr. WM. HOTCHKISS, Jr. of Pekin, Niagara county, in a note says, "You will oblige your subscribers in this section of the country by ascertaining through your numerous correspondents what will effectually destroy the Canada thistle, which is rapidly spreading over many farms in this county. We should like to hear something from you on this subject."

We are convinced that to effectually destroy the Canada thistle is one of the most difficult processes of farming; and that it is impossible to keep tilled lands free from its presence, while so many thousands of acres are annually allowed to go to seed, and thus spread the mischief as far as the winds can blow. The surest way to extirpate the thistle is to attack it, and dig it out thoroughly, for if the roots are not killed, all remains to be done over again. We have known thistles killed by mowing them closely three or four times in a season; by hoeing crops planted among them as often as they appeared; and by repeated plowings for summer fallows. Where there are only a few plants, cut each one a little below the surface, and apply a spoonful of salt; but we can assure all those who have the thistle on their farms, that unceasing vigilance will be required to check their progress. If any of our correspondents can point out a way to effectually destroy this greatest of pests, we shall be most happy to lay it before our readers.

Building Mill Dams.

"W. J. W." of Milford Mills, in a letter to us says, "Having recently lost my mill dam by the late freshet ice, which frequently happens in this county, I should be pleased to avail myself of the experience of some of your valuable subscribers, upon the subject of the best mode of building mill dams, with reference to durability and cheapness, together with any useful information on the subject."

The immense losses sustained the present season, by the loss of dams connected with mills and public works, shows that the topic suggested by our correspondent is an important one, and we hope some of our friends competent to the task will give the desired information through our columns.

BENJ. CLINAMEN of Lancaster county, Pa. thus writes us respecting the progress of agriculture in that district. "Andrews' Bridge, 1st mo. 1841.—The appearance of stock is much better than it was a few years back. A slight intermixture of Devon and Durham is improving the cattle, and a few Berkshires lately introduced are destined, as I hope, to revolutionize our hogs. Spring wheat has been sowed to some extent, but without very flattering success. Dutton and Sioux corn, I and some others have tried, but with us the yield is inferior to the yellow gourd. Ruta bagas have succeeded well in some cases but not with me. I last spring planted 40 for seed, and four-fifths of the whole were destroyed by a small white worm at the root; and a patch I planted for winter use shared the same fate. Do you know of a preventive?* The sugar beet does well, generally, and many are beginning to esteem it a matter of interest to grow it. White is considered the best variety, the white or the yellow?† There are a few hereabout who are firm believers in the plan of putting manure under the soil in the spring; but the great majority can only be persuaded by demonstration that the *'good old way'* can be superseded by a better one."

Specimens of Indian Corn.

Catalogue of several specimens of Indian Corn, cultivated by C. N. BEMENT, *and presented to the Editors of the Cultivator, Jan.* 1841.

No. 1.—DUTTON.—This variety of yellow twelve rowed corn, is so well known that it requires no description.

No. 2.—KING PHILIP.—So called from the celebrated Indian Chief, "Philip, King of the Wampanoags." It is a yellow, eight rowed flint variety, small kernels and very small cob. It is a hardy plant, belonging to a high latitude; grows to about nine feet in height; stalks small; ears from 9 to 12 inches in length. It has always ripened, with me, as early as the Dutton.

I obtained the seed some four years since, in Farmington, Conn. where it has been cultivated time immemorial. Meal made from this corn is much esteemed for its bright yellow color, high flavor and sweetness.

No 3.—WHITE FLINT.—This is an early eight rowed variety—excellent for the table, when green; is extensively cultivated in this country for a crop; grows about nine feet high; stalks of medium size; cob not large, yields well, ripens early, but makes indifferent meal.

No. 4.—MICHIGAN DENT.—This has a large sized cob of medium length—sixteen rows—kernels long and indented, somewhat resembling the horse-tooth or gourd seed corn of the south—color inclining to lemon—grain light; stalks large and reaching twelve feet in height; does not yield well, nor did it ripen with me.

No. 5.—TRIESTE.—This is a twelve rowed variety; ears from five to seven inches long; large at the butt, and tapering to the point; of a bright orange color; the ears are covered with more and a tougher husk than any other variety I know of.

The seed was obtained from a cargo brought from Trieste—hence its name, "Trieste Corn." I have only cultivated it one season, and cannot, therefore, form an opinion, whether it would, after being acclimated, prove a profitable variety or not. My impressions are unfavorable to it. It grew high, stalks large and much inclined to fall.

No. 6.—SQAW OR POP CORN.—This is a very small twelve rowed, fancy variety, of a brown color—cob short and conical, kernels small and hard—stalks small and grow from five to six feet high; is generally cultivated for parching or "popping."

No. 7.—VARIEGATED.—This appears to be a mixture or cross of the squaw corn with some other variety of yellow corn.

FARM IMPLEMENTS.

Drills and Drill Culture.

IN pursuance of our intention to lay before our readers in successive numbers of the Cultivator, examples of the most useful implements in their most approved varieties, we this month present specimens of the drill, which, though it has not come into as extensive use in this country as in Europe, has been sufficiently used to establish its claim to being one of the most important labor-saving machines yet invented for the farmer. Two causes have conspired to prevent the general use of the drill among us; first, the little attention root culture has received from the great mass of our farmers; and secondly, the imperfect state of our tillage, both which causes must gradually disappear, as a more perfect and profitable husbandry is introduced.

Jethro Tull considered himself the inventor of Drill Husbandry, but the drill was known in Britain 200 years before Tull, and applied at that time to a use to which Tull was a stranger, but which gives it its greatest value, the drilling in of manures with the seed sown. The system of Tull and his followers, however, maintaining as they did, that by sufficient working and pulverization of the soil, its fertility might be kept up for an indefinite period, was admirably adapted to the use of the drill, as its efficiency is always in a great measure depending on the fineness of the soil. The drill made but slow progress in Britain, and it was not until the extensive introduction of the turnep culture into Norfolk, and the splendid success of Mr. Coke, now Lord Leicester, that its merits as an agricultural implement were generally allowed.

It is but quite lately that its value as a distributor of the powerful modern manures, such as rape or oil cake dust, bones, animalized carbon, and particularly poudrette, or prepared night soil, has been understood or appreciated. The assertion of Lord Kaimes "that the time would arrive when the farmer could carry the manure for a field crop in his pocket," has not yet been fully realized; but it seems to be in a much fairer way for its accomplishment than the prediction of John, his lordship's plowman, which was, "that when the manure was carried out in one pocket, the crop could be brought home in the other;" as the increase of crops has thus far kept pace with the concentration and direct application of manures.

The drill has been of late used extensively in some parts of Britain for sowing broadcast, and a figure and description of the implement used for this purpose may be found in Prof. Low's Practice of Agriculture. The machine is made to sow a breadth of sixteen feet, and distributes the seed with an evenness and regularity not easily attainable when the seed is scattered by the hand. Every farmer is aware that much of the goodness of the crop is depending on the proper distribution of the seed, and it is found that a much smaller quantity of seed put in with the drill, although not in drills, will give an equal number of thrifty plants, with a greater quantity put in more irregularly; and that the ground will be occupied more fully in the former than in the latter case.

The great desideratum in a drill, is the power of delivering the seeds regularly; at the precise distances required; in no greater quantities than are required for fully seeding the ground; not failing in depositing the seeds; and simplicity and durability in its parts. Drills are very apt, either to deliver too great quantities, and thus waste the seed sown; or to clog and not deliver any, thus rendering the plants irregular, or perhaps wholly disappointing the hopes of the planter. In

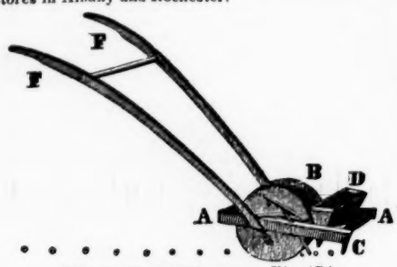
* Our turneps have never suffered in this way, but as the worm is probably the small white one found in highly manured ground, it is likely that a handful of new ashes stirred in with the soil around the roots would operate favorable.

† The *White Siberian*, is usually considered as containing the most sugar; and this is doubtless the proper test of value.

some of the improved drills, this objection, especially in sowing seeds round or regular, has been mostly overcome, and the planting is performed with a precision and regularity which could not be reached by the hand alone. In sowing turnep, beet, carrot, or other small seeds, that are cultivated in drills, or where the soil is favorable, in planting corn, the drill has become a favorite implement, and when well constructed, a most valuable and labor-saving machine.

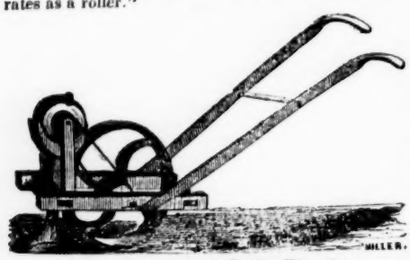
We give here engravings of some of those drills that in this country have been received with most favor, adding short descriptions as furnished by the inventors or improvers.

The most simple form of the drill with which we are acquainted, is shown in the subjoined cut of an implement invented by Mr. MERCHANT of Chenango county, N. Y. It is a good machine for sowing turneps, but not generally adapted to other seeds; it is very cheap, costing only two or three dollars, and is in extensive use in some parts of the country. It may be had at the seed stores in Albany and Rochester.



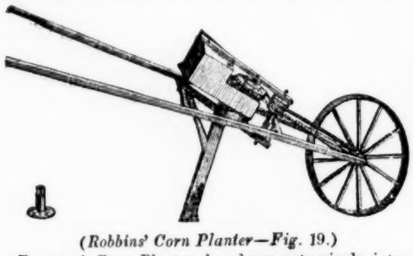
(Merchant's Drill Barrow—Fig. 17.)

A. A. are the two sides of the frame, 16 inches long, connected at each extremity by cross-pieces. B. is a wheel 10 inches in diameter and four inches broad, made of wood. C. is a coulter attached to the forward cross-piece. D. is the hopper in which the seed is placed. F. F. are the handles by which the machine is impelled and guided. Back of the hopper is a roller, attached to which is a metal slide, not perceptible in the cut, perforated with a hole of the size of the seed to be sown, which slides close to the bottom of the hopper. The roller is moved, when the machine is in motion, by stout wires seen in the drawing. When the machine is in motion, the coulter C. makes a drill into which the seed immediately drops; two pieces of round iron project down diagonally from the sides, which throw the mol upon the seed, and the wheel then passes over and operates as a roller."



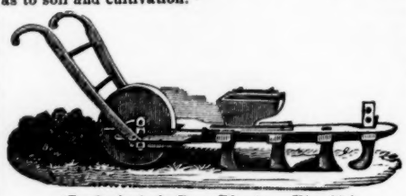
(Bement's Improved Drill—Fig. 18.)

Mr. BEMENT's Improved Drill is one of the best implements offered to the public, simple in its construction, and sure in its operations, and large numbers of them have been sold. It consists of a tin cylinder in which the seeds are placed, and through holes in which they are dropped, and has the advantage of exhibiting the seed when dropping. There are two or more sizes of holes, one set intended for beets, &c. and others for smaller seeds, such as turnep, onion, carrots, &c. When not in use, one or the other of the rows of holes are closed by a band which prevents the escape of the seed. It is made in a substantial and durable manner. Since the above figure was taken, an improvement has been made, by placing the seed dropper behind instead of before the wheel, and adding a roller which follows and covers the seed. For sale by Wm. Thorburn, Albany Price $10.



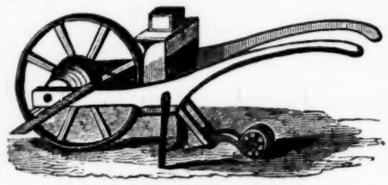
(Robbins' Corn Planter—Fig. 19.)

ROBBINS' Corn Planter has been extensively introduced into use among farmers. This drill has "six droppers, with different sized holes, and will plant corn, beans, peas, broomcorn, beets, turneps, onions, carrots, &c. &c., with great precision." In a communication to the Cultivator in 1836, Mr. Bement says, "the corn I planted with Robbin's Machine last season on my farm, exceeded that planted with the hoe, by the acre, at least fifteen bushels, under circumstances equally favorable as to soil and cultivation."



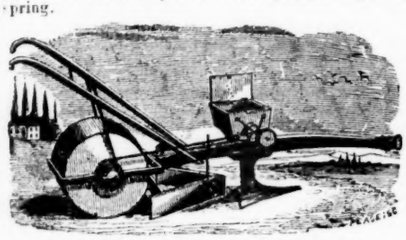
(Buckminster's Corn Planter—Fig. 20.)

Buckminster's Corn Planter is a machine invented by Mr. BUCKMINSTER of the Boston Cultivator, for planting corn and other seeds, and has a good reputation with those who have used it. It is manufactured by Mr. Prouty of Boston. Unlike the foregoing, which are all worked by hand, Mr. Buckminster's is drawn by a horse, and an acre is well planted in one hour. The quantity of seed delivered, and the depth to which it is buried, is regulated by screws; and the teeth in the beam pulverize the soil for the seed while the roller presses the earth upon it as soon as it is covered.



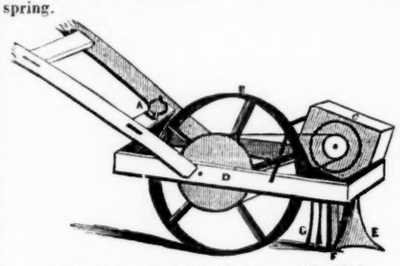
(Cole's Corn Planter—Fig. 21.)

Cole's Corn Planter and Seed Sower, invented and patented by Mr. COLE, editor of the Yankee Farmer, has a high reputation among those who have used it, for the celerity and certainty of its operations. "One of our most intelligent farmers," says the inventor in a notice of the implement, "who has used it, says that he saved the whole expense of the machine in one season. He planted eight acres of corn, opening the ground, dropping the seed and covering it, in less time than it could have been dropped by hand, and with as much exactness." For sale by N. P. Willis, Boston, and will be for sale by Mr. Thorburn in this city in the spring.



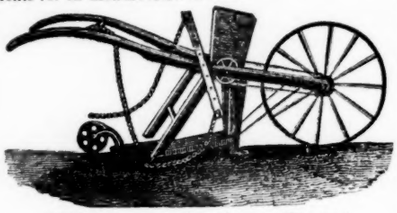
(Bachelder's Planting Machine—Fig. 22.)

BACHELDER's Planting Machine, was described in the last volume of this paper, page 141, to which we refer our readers. "It is calculated to plant all kinds of seed usually planted in hills or drills." It is made and for sale by T. G. Goodrich, Haverill, Mass. Price $15. Mr. Thorburn expects to have them for sale in the spring.



(Hoyt's Improved Drill Barrow—Fig. 23.)

This implement, invented by Mr. HOYT of this city, was fully described in the 5th volume of the Cultivator, p. 141. It may be used for turneps, carrots, beets, beans, and all like garden and field vegetables. We are not aware that the inventor has made any arrangements for its manufacture or sale.



(Willis's Improved Seed Sower—Fig. 24.)

Mr. WILLIS of Boston is also the maker of some excellent drills, and his late improved one has few superiors. It will be seen that the general principles of these implements cannot vary greatly, although the manner of distributing the seed is accomplished by somewhat different means. The great object is to place the seed at proper distances, at the desired depth, and cover it so that it may be sure of germination. The great danger in the use of the drill, and one which the operator must guard against, is the clogging of the implement and consequent failure of the seed.

None of the American Drills as yet have any apparatus added for distributing manure with the seed as is practiced in Europe, although as the use of these artificial manures becomes more common, the necessity of such a course will be apparent. All the small seeds, which require a quick germination should be brought in immediate contact with the manures applied, as the more rapid their growth, the sooner they are beyond the dangers which always attend cultivated plants when young. Bone dust and Poudrette must be sown in this way if their full value would be realized. Broadcast, they certainly are valuable; but one bushel applied directly to the plants in drilling has been found to produce a better effect than four times the quantity applied broadcast to the same surface.

This is a proper place to make one remark on the general character of American agricultural implements, particularly our drills, chaff or straw cutters, threshing machines, &c. *There is not attention enough paid to their strength and durability.* Without these qualities a farming implement is worse than useless; always out of order or broken, they only serve to prejudice the farmer against labor-saving implements of all kinds, prejudices which when once formed, all experience shows it is difficult to obliterate. The tools of a farmer are not holiday things, or used for holiday purposes; they require strength and firmness; and these things should always be kept in view by the manufacturer. Good implements and fair prices, are what the farmer wishes, and which would prevent all complaints on either hand. There has been a decided improvement in this respect within a few years; but a little experience on the farm will show there is room for still more.

Organic Chemistry, in its applications to Agriculture and Physiology.

UNDER this title, Prof. LIEBIG, of the University of Giessen, has given to the public one of the most important contributions science has ever made to agricul ture; and we are pleased to learn that it is soon to be presented to the American farmers by Wiley & Putnam of New-York, under the supervision of B. SILLIMAN, Jun. of New Haven. Prof. Liebig has availed himself of the latest improvements in both chemistry and in agriculture, and has applied the former to an explanation of the results on the latter, with a success hitherto unequaled. Chaptal and Davy are justly regarded with the greatest respect for the services they rendered the farmer, by devoting their great powers to an elucidation of the processes of agriculture; but discoveries in the operations of nature have been made since Chaptal and Davy wrote, which have materially modified some of the positions taken by them. As an instance of the advance which has been made, we copy from a notice of the work in Silliman's Journal, the following paragraphs on that much disputed question the action of Gypsum:

"The existence of Ammonia as a constant constituent of the atmosphere, had never been proved, or even suspected, before the researches of Prof. Liebig, and the great importance of the discovery in a practical point of view can be justly appreciated only by a careful perusal of the present treatise. * * * It is shown that rain water and snow always contain ammonia, and it may be proved to the satisfaction of any person, by adding a little sulphuric or muriatic acid to rain water, and evaporating it nearly to dryness, in a clean porcelain capsule, when the ammonia will be detected by adding to the residuum a little powered lime, which will liberate the ammonia; thus produced, it always has an offensive animal odor, fully indicating its origin. *It is an interesting thing, that in the discovery of ammonia in the atmosphere, we have also discovered the true cause of the great fertilizing effects of Gypsum or plaster of Paris, a key to which has so long been sought in vain.* The fertility arises exclusively from the fact that the sulphate of lime fixes in the soil the ammonia dissolved in the atmosphere, which would otherwise be voatilized with the water in its evaporation. * * * Soluble sulphate of ammonia and carbonate of lime are formed, and this salt of ammonia possessing no volatility, is consequently retained in the soil. The action of gypsum, or chloride of calcium (muriate of lime) really consists in giving a fixed condition to the nitrogen or ammonia which is brought into the soil, and which is indispensable to the nutrition of plants. The decomposition of gypsum by carbonate of ammonia does not take place, however, instantaneously; on the contrary, it proceeds very gradually, and this explains why the action of gypsum lasts several years."

NEW COTTON.—A new variety of Cotton has been introduced into Alabama from Rio, in South America, and is called the Rio Cotton. It is said to be superior to the Sea Island. The staple is about three inches long, and of glossy silk texture.

N. YORK STATE AG. SOCIETY.

Albany, Feb. 10, 1841.

Pursuant to public notice, the New-York State Agricultural Society met at Knickerbocker Hall in Albany, this day at 11 o'clock A. M. The President being absent, ALEXANDER WALSH, Esq. one of the Vice-Presidents, took the chair, and JESSE BUEL was appointed Secretary pro tem. A quorum being present, the minutes of the last meeting were read. The Report of the Treasurer, C. N. BEMENT, Esq. was then received, read and accepted.

The Constitution of the Society being called for, was read, when several amendments were proposed by Messrs. TUCKER, NOTT and FULLER, which, after discussion, were adopted, and the revised Constitution directed to be published as follows:

Constitution of the N. Y. State Ag. Society,
As Amended Feb. 10, 1841.

The style of this society shall be "The New-York State Agricultural Society;" its objects shall be to improve the condition of agriculture, horticulture and the household arts.

Sec. 1. The society shall consist of such citizens of the state as shall signify in writing their wish to become members, and shall pay on subscribing not less than one dollar, and annually thereafter not less than one dollar, and also of honorary and corresponding members.

The presidents of county agricultural societies, or a delegate from each, shall ex-officio be members of this society.

The payment of fifty dollars or more, shall constitute a member for life, and shall exempt the donor from annual contributions.

Sec. 2. The officers of the society shall consist of a president, eight vice-presidents, one to be located in each Senate District; a recording secretary, a corresponding secretary, a treasurer, an executive committee, to consist of the officers above named and five additional members, of whom three shall constitute a quorum, and a general committee, the members of which shall be located in the several counties, and be equal to the representatives in the house of assembly.

Sec. 3. The recording secretary shall keep the minutes of the Society.

The correspon ling secretary shall carry on a correspondence with other societies, with individuals, and with the general committee, in furtherance of the objects of the society.

The treasurer shall keep the funds of the society, and disburse them on the order of the president or a vice-president, countersigned by the recording secretary; and shall make a report of the receipt and expenditures at the annual meeting in January.

The executive committee shall take charge of and distribute or preserve all seeds, plants, books, models, &c., which may be transmitted to the society; and shall also have the charge of all communications, designed or calculated for publication, and so far as they may deem expedient, shall collect, arrange and publish the same in such manner and form as they shall deem best calculated to promote the objects of the society.

The general committee are charged with the interests of the society in the counties in which they shall respectively reside, and will constitute a medium of communication between the executive committee and the remote members of the society.

Sec. 4. There shall be an annual meeting of the society on the third Wednesday of January, in the city of Albany, at which time all the officers shall be elected by a plurality of votes and by ballot, with the exception of the general committee for the counties which may be appointed by the Executive Committee, who shall have power to fill any vacancies which may occur in the officers of the society during the year. Extra meetings may be convoked by the executive committee. Fifteen members shall be a quorum for the transaction of business.

Sec. 5. The Society shall hold an annual Cattle Show and Fair at such time and place as shall be designated by the Executive Committee.

Sec. 6. This constitution may be amended by a vote of two-thirds of the members attending any annual meeting.

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A committee of fifteen was appointed to nominate officers of the society for the ensuing year, to report to a meeting to be held at the Senate Chamber, at 3 o'clock, P. M. to-morrow. Adjourned to 3 o'clock, P. M.

Feb. 10, 3 *o'clock, P. M.*

Met pursuant to adjournment, for the purpose of complying with the invitation of EZRA P. PRENTICE, Esq., to visit Mount Hope Farm near this city, to view the beautiful and extensive herd of Improved Short Horns owned by Mr. P. The company, some fifteen or twenty in number, after an examination of the Short Horns and South Down sheep at Mount Hope, with which they were highly pleased, were taken by Mr. Prentice to Mr. Corning's farm, where they had an opportunity of viewing a portion of the Hereford cattle and Cotswold sheep imported by Messrs. CORNING and SOTHAM the past season.

Senate Chamber, Jan. 11, 3 *o'clock, P. M.*

Met pursuant to adjournment, H. D. GROVE, Esq., one of the Vice Presidents, in the chair. The committee appointed to nominate officers, made their report, which was read and accepted; and the following gentlemen were unanimously elected officers of the Society for the ensuing year:

JOEL B. NOTT, of Albany, President.
Vice Presidents.
1st district, JEROMUS JOHNSON, of Kings,
2d —"— ROBERT DENISTON, of Orange.
3d —"— CALEB N. BEMENT, of Albany.
4th —"— EDWARD C. DELAVAN, of Saratoga.
5th —"— BENJAMIN P. JOHNSON, of Oneida.
6th —"— LEWIS A. MORRELL, of Tompkins.
7th —"— WILLIS GAYLORD, of Onondaga.
8th —"— T. C. PETERS, of Genesee.

Additional Members of the Executive Committee.
ALEXANDER WALSH, of Rensselaer.
GEORGE VAIL, of do.
HENRY D. GROVE, of do.
A. L. LINN, of Schenectady.
JOHN McD. McINTYRE, of Albany.
HENRY S. RANDALL, of Cortland, Cor. Sec'y.
EZRA P. PRENTICE, of Albany, Treasurer.
LUTHER TUCKER, of Albany, Recording Sec'y.

The following resolution was introduced by J. J. VIELE, Esq. of Rensselaer:

Resolved, That a committee of five be appointed to prepare, and present a memorial to the Legislature, now in session, praying for an appropriation of $7,000 annually, for the benefit of Agriculture, to be distributed to the several County Agricultural Societies in the ratio of $50 to each member of Assembly, and the sum of $600 to the State Agricultural Society; the money to be paid to the several Societies when they shall have raised an equal sum.

After an animated and interesting discussion, in which Messrs. VIELE, JOHNSON, ROOT, FULLER, and others, took part, the resolution was unanimously adopted, and Messrs. VIELE, TUCKER, BEMENT, McINTYRE and VAN BERGEN, were appointed a committee to memorialize the Legislature for the purposes expressed in the resolution.

Several Reports were received from Committees appointed at the last meeting, to report on various matters of practical agriculture, which will be published hereafter.

On motion of C. N. BEMENT, Esq. it was

Resolved, That the Executive Committee be requested to procure reports from different members of the Society, on the following subjects, to be presented at the semi-annual meeting.

1. On the most approved method of stall feeding oxen and other neat cattle.
2. On converting green crops and other vegetable matters into manure.
3. On the best method of increasing manure and forming a compost.
4. On the proper time to cut Timothy and other grasses, and the most approved method of curing the same.
5. On the comparative economy of employing oxen and horses in the usual business of the farm.
6. On the comparative economy of potatoes, ruta baga, carrots or beets, as food for cattle, sheep and swine.
7. On the relative value of apples as food for swine, or other domestic animals, compared with making them into cider.
8. On the best means of eradicating Canada thistles.

A resolution was adopted, requesting the President elect to deliver an Address in the Assembly Chamber, in furtherance of the objects of the Society, on the evening of the 23d inst.

Adjourned to meet at the Assembly Chamber on the 23d inst.

Assembly Chamber, Feb. 23, 1841.

The Society met pursuant to adjournment at 7 o'clock, P. M. The Hon. JEREMIAH JOHNSON, Vice President from the first District, took the chair and called the Society to order, when the President, J. B. NOTT, Esq. delivered an Address, replete with eloquence and instruction, which was listened to by a large and attentive audience with great satisfaction. The thanks of the Society were tendered to Mr. NOTT, and a copy of his Address solicited for publication.

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Meeting of the Executive Committee.

The Executive Committee of the New-York State Agricultural Society, met at the office of the Cultivator, Albany, on the 23d of February—the PRESIDENT of the Society in the chair. A letter was read from P. B. JOHNSON, Esq. Vice President, expressing his regret that he should not be able to attend the meeting. Mr. J. says—"It will afford me great pleasure to communicate with you at all times in relation to the interests of the Society, and to unite with the officers in such measures as shall be best calculated to promote the best interests of Agriculture in our State. I hope something will be done in aid of our objects by the Legislature; and could County Societies be established and sustained, it appears to me that great good will result."

A letter was also read from Col. H. S. RANDALL, Cor. Sec'y, accepting the office, and assuring the committee that he will devote himself zealously and untiringly to the cause. He says—"I wish you would express to the committee the deep regret I feel in not being able to meet them. Say to them, that as one of their body, were I present, I would counsel *action*,—decided energetic ACTION. A mere formal organization—a nominal Society merely, is useless—nay, the next thing to ridiculous; and unless I greatly mistake the signs of the times, effort on our part will be met with more of corresponding spirit, than it has been in preceding years."

After the appointment of a part of the County Committees, the business was postponed, and a committee appointed to make the necessary inquiries and report suitable names at the next meeting.

A committee, consisting of Messrs. Tucker, Prentice and McIntyre, was appointed to report a code of By-Laws and Regulations for the better management of the affairs of the Society.

The following resolutions were unanimously adopted:

1. That the Executive Committee will hold regular monthly meetings on the *Third* WEDNESDAY of each month, at the room No. 7, Exchange Building, Albany, at 3 o'clock, P. M.

2. That to enable this Society to carry into effect the great objects of its formation, it is necessary to raise the sum of $1,500, in addition to the aid expected from the State.

3. That as one means of increasing the funds of the Society, the Corresponding Secretary address a circular letter to the members of the Executive and General Committees, urging upon them the necessity of immediate and persevering personal exertion to increase the number of both life and annual members of the Society.

4. That the Recording Secretary prepare and report at the next meeting a correct roll of the members of the Society, specifying those who have paid their annual dues, and the sums due from those in arrears.

5. That the Executive Committee will decide upon the place of holding their First Exhibition and Fair, at their regular meeting in April; and that a committee of nine be appointed to report on the Premium List, so far as practicable at the March meeting. The committee consists of Messrs. McIntyre, Walsh, Bement, Randall, B. P. Johnson, Grove, Gaylord, Morrell and Peters; and it is expected they will report individually, their views in relation to the objects which should be be made subjects for premiums.

Tobacco.

THE culture of tobacco constitutes one of the most important items of the agriculture of the Middle States; and is the great disposable crop of Virginia, Maryland, Tennessee, Kentucky, and part of Ohio. As an article of export it is second in value only to cotton; and were it not for the enormous duties foreign governments compel it to pay, amounting in some cases to 800 per cent upon its cost, the amount might be vastly increased, and with the greatest benefit to the producing districts. The state of matters in relation to our tobacco abroad, is one which should receive the prompt attention of those interested. Free trade is beautiful in theory, and would the whole world, or the principal commercial powers, practice it, the results would no doubt be happy; but that state of trade in which all the freedom is on one side, and the restrictions on the other, will assuredly benefit one at the expense of the other. It is a law of nature that we should protect ourselves, and we are glad to see the tobacco growers moving in this matter. There can be no possible reason given why the productions of Great Britain should be admitted duty free into Virginia, and the products of Virginia be charged with a duty of 6 or 800 per cent by the former. The inequality is too gross to be tolerated in any country.

The convention of tobacco planters held at Washington City in December last, was numerously attended; Gov. SPRIGG of Maryland, was appointed President, with other officers. Mr. JENIFER made a very able Report showing the state of the tobacco trade with other countries, particularly Great Britain and France. It stated that the duty on our tobacco in Great Britain was $72.75 on every 100 lbs., or 800 per cent on its prime cost; and that France derives a revenue of *ten millions of dollars*, from a reduced importation of only some six or seven thousand hogsheads; and this at a time when the average duty on British goods in this country is only about 12 per cent, and France is draining our country annually of some 30 millions for her silks and wines, which are poured in upon us at rates of duty, merely nominal.

As the culture of tobacco is yearly becoming a subject of greater interest to thousands of our subscribers, we hope some gentleman, practically acquainted with the culture and the curing of the plant, will furnish us with a full account of the methods most approved. Such an article would doubtless be well received, and be productive of benefit to a large class of agriculturists.

Durham District U. C. Ag. Society.

THE annual meeting of this spirited agricultural society among our Canada neighbors, was held at Port Hope, on the 15th of Jan; and the following gentlemen were appointed officers for the year 1841: President, DAVID SMART; Vice-Presidents, ALEXANDER BROADHEAD, R. W. RONSON, JOHN KNOWLSON, and JOHN SMART; Treasurer, WILLIAM SISSON; Secretary, MORGAN JELERTY. It was found there was in the hands of the Treasurer, one hundred and two pounds. This is as it should be; to render an agricultural society efficient, to enable it to do good, there must be money, and the members of the Durham County Society have shown the sincerity of their professions, by their works. There are many agricultural societies in the United States, the members of which might with advantage emulate the liberality of their agricultural friends in Durham County, and by so doing give their association an impulse which could not fail of producing the happiest effects.

Gen. McDuffie's Address.

THE anniversary meeting of the South Carolina State Agricultural Society, was held at Columbia, on the 26th of November, 1840, and the address was delivered by Gen. MCDUFFIE. It is unnecessary to say it is able; and although exclusively southern, or rather local, in its recommendations, there is much in it to interest the friends of agriculture every where. The object proposed in the address is to point out some of the most prominent errors in southern agriculture and to suggest remedies. We shall make a few extracts from the copy of the address now before us:

"The greatest, most prevailing, and most pernicious of all the practices which distinguish and deform the agriculture of this and the other cotton planting states, is the almost exclusive direction of the whole available labor of the plantation to the production of our greatest market staple, and the consequent neglect of all the other commodities which the soil is capable of producing or sustaining, and which are essential to supply the wants of the establishment. No scheme of reform or improvement can produce any great and salutary results, which does not lay the axe to the root of this radical vice in our husbandry."

It is not a little singular that the great staple of the south should be an article of which the more the planter produces the worse off he is, and of which a great crop generally should be considered a public calamity. That such is the fact is perfectly evident from this address. There is not a recommendation of any means by which the cotton crop can be augmented; on the contrary the importance of diminishing the aggregate product of that article is constantly kept in view. Indeed, Gen. McDuffie says, "If I could now reveal a process by which our common soils could be made to produce two bales of cotton to the acre, I should have great doubts whether the revolution would be a blessing or a curse to that great interest."

Perhaps there cannot in the whole history of trade be found a more signal instance of the impolicy of interfering with the natural laws that regulate supply and demand, than the cotton business of the south, within the last few years. In the fore part of this century, the demand for cotton exceeded the supply, and the prices gradually rose to 25 or 35 cents per pound. The consequence was, the whole productive energy of the south was turned into one channel, and nothing was grown but cotton. The annual product rose from one million to two millions of bales. The supply exceeded the demand, and as the crop increased, prices fell from those mentioned above, to 10 or 15 cents per pound. In this state of things, in 1837, the wild project was conceived of holding on to the crop, and thus forcing the article in foreign markets up to its former prices. The banks of the south, aided and stimulated by the United States Bank of Pennsylvania, entered the field, and by large discounts to the planters at long dates, enabled them to keep their cotton at home. Had production ceased, this plan might have been a feasible one; but there was no attempt to check production, and the inevitable result was, the planters found themselves with two crops on hand instead of one; the foreign demand had but slightly increased, and both planters and banks found themselves involved in the greatest distress. Both were compelled to suspend, and the shock, to the financial interests of the country, was so great that they have not fully recovered from it to the present time. The necessity of the cotton growing states turning their attention to something besides that crop, has been further enforced by the fact that a great cotton growing country is opening around the Gulf of Mexico, which is every year adding to the supply, without materially adding to the demand.

The following paragraph from the address is as applicable at the north as at the south, and we wish every farmer and every reader would fix in his mind these four little words and govern himself accordingly. Let every man adopt "PAY AS YOU GO," for his motto, and the individual and the country would soon reap the benefit:

"I have known many men, who were considered bad planters, and who made small crops, yet in a series of years have grown wealthy by this very simple rule which I once heard laid down by a friend. He never made large crops, and when asked how he got rich so much faster than his more energetic neighbors, he replied, 'my neighbors begin at the wrong end of the year. They make their purchases at the beginning of it, on a credit; I make mine at the end of it, and pay down the cash.' And here I am reminded of a saying of the late John Randolph of Virginia; a man not more remarkable for his genius and eccentricity, than for the profound philosophical truths which sometimes escaped him, like the responses of an inspired oracle. In the midst of one of his splendid rhapsodies in the Senate of the United States, he paused, and fixing his eye on the presiding officer, exclaimed, 'Mr. President, I have discovered the philosopher's stone. It consists in these four plain English monosyllables: '*Pay as you go.*' Now I will venture to say, that this is a much nearer approach than alchemy will ever make to the great object of its visionary researches."

Gen. McDuffie most strenuously urges upon the planters of the south, the necessity of growing their own corn, and making their own pork or bacon; of raising their own horses, hogs and mules, and points out the way in which, in his opinion, and from his own experience, this may be done. That the way thus marked out, is the true one for the planter seems scarcely to admit of a doubt, for the present system is clearly a ruinous one.

Head of the Horse.

THERE is a singular disease of the horse's head, prevalent in some of the northern and western states, called the "Big Head," from a general enlargement of the lower part of the head, or between the eyes and nose, giving him a most disagreeable appearance. This disease we have never known originate in the north, and it is rarely or never seen unless in horses from the south. It is singular that no distinct notice of such a complaint can be found in English works on the horse, neither Lawrence or Youatt describing any similar disease.

In a late number of the Southern Cultivator, there is an article upon it, from which we extract the following: "Its symptoms are a general enlargement of the part of the head between the eyes and nostrils on both sides of the nose—a subsequent enlargement of the lower jaw—sometimes an inflammation of the washer of the eye—hidebound, stiffening of the joints of the limbs and back, general debility, sluggishness, and if not cured, death. * * * * * * As to its cause, one opinion is that it is hereditary—another, that it is produced by excessive feeding on Indian corn, bad treatment, &c. Some farmers view it as simply an inflammation and swelling of the tendons in the region affected—others assure us that the bone is enlarged. Colts are more liable to the disease than full grown horses. A friend who has paid much attention to the raising of horses, ascribes it to the existence of what he calls 'blind teeth'—small pointed teeth which make their appearance in the upper jaw just in front of the grinders; and on examining a colt affected with symptoms of big head, a few days since, we found he had these blind teeth. To knock them out is said to be a remedy. Others sear with a hot iron the enlarged part of the head, and we have incontrovertible evidence that a cure is thus effected, but a scar is left which disfigures the horse, and of course impairs his value."

Hessian Fly—A Lady Observer.

IN the "Proceedings" of the American Philosophical Society for November and December, 1840, is a report made by a committee consisting of Messrs. Nuttall, Lea, and Coates, all eminent in the natural sciences, on a paper presented to the Society by Miss MARGARETTA H. MORRIS, of Germantown, on the subject of the Hessian Fly, the Cecydomyia destructor of the entomologist, and perhaps the greatest pest the wheat grower of the middle states is called to encounter. The paper was ordered to appear in the "Transactions" of the Society, and in the mean time Dr. Coates prepared an abstract of it for the Farmer's Cabinet, in the January number of which it appears.

The researches and observations of Miss Morris have led her to form a new theory of the action of this insect, and if her positions can be substantiated, the discovery is of immense importance to the country. The following extract from the "Proceedings" will show the principal facts in the case, and put other observers in the way either to correct or confirm the observations of Miss Morris:

"Miss Morris believes she has discovered that the ovum of this destructive insect is deposited by the parent in the seed of the wheat, and not, as previously supposed, in the stalk or culm. She has watched the progress of the animal since June, 1836, and has satisfied herself that she has frequently seen the larvæ within the seed. She has also detected the larvæ at various stages of its progress, from the seed to between the body of the stalk and the sheath of the leaves. In the latter situation, it passes into the pupa, or 'flax seed state.' According to Miss Morris, the recently hatched larvæ, penetrates to the center of the straw, where it may be found of a pale greenish white semi-transparent appearance, in form some resembling a silkworm. From one to six of these have been found at various heights from the seed to the third joint. They would seem to enter the pupa state, about the beginning of June. The fly was not observed by Miss Morris to inhabit any other plant than wheat."

The researches of Drs. Mitchell and Pascalis had thrown much light on this intricate subject, and their labors were well followed up by the Entomologist Say. Still there were some things which their account of the changes, or transformation, of the insect did not fully explain, particularly the destruction of the crop by the fly and the sowing of the same year. This fact, which was not of uncommon occurrence in districts where the fly prevailed, seemed to render the admission of two appearances of the perfect insect in one season, a rare if not an unknown occurrence among depredators of this class. On this subject, Dr. Coates remarks:—

"According to the facts believed to be ascertained by Miss Morris, the difficulty at once disappears. The fly lives only ten days; during which time it deposites its eggs in the wheat. The eggs remain unaltered until the wheat sprouts; and the young worm is then below the surface of the earth, in a substance which is not frozen, and which supplies him with food."

Should the theory put forth by Miss Morris be sustained, and it appears very reasonable as well as plausible, nothing more will be necessary to prevent the Hessian fly, than to sow seed from uninfected districts. Pure seed would gradually become contaminated from the neighboring fields, but a recurrence to this mode of seeding would again remedy the evil. 'It would seem," says Dr. Coates, "that the farmer who uses seed wheat from a district ravaged or infested with this animal, actually commits the absurdity of *planting Hessian flies* for the benefit of his next year's crop." The theory of Miss Morris also explains the reason why spring wheat frequently suffers from the fly; since if the fly ova is in the seed, the young worm is ready at the sprouting of the seed, to follow the growth of the plant, and pass through its several transformations in season to deposit the egg again in the seed, and thus perpetuate the mischief.

Some farmers have supposed that the Hessian fly was identical with the one that produces the wheat worm of the Northern States, and which in many districts for a time compelled the cultivator to abandon the growing of that crop. The observations of Miss Morris, however, show that such an opinion is formed in error. The ovum of the wheat worm, whether deposited in the berry or merely within the sheath of the kernel, changes to the larvæ state at once, destroys the berry by feeding upon it, and leaves the head of the grain for its winter quarters, most usually before the grain is harvested. The Hessian fly on the contrary leaves its ovum in the berry, where it remains until the seed is sown; and germination furnishes it a suitable food as well as residence. Few things can more forcibly demonstrate the importance of entomological research than such discoveries, and it is honorable to Miss Morris, that she has unraveled a mystery which has long perplexed men of science. We are pleased to hear that she is continuing her observations, and we shall doubtless learn more of them in good time.

Underdraining with Wood.

THE following extract of a letter from the Hon. JAMES M'CALL of Allegany County, N. Y. will be read with interest by many who wish to drain lands, but find it expensive or impracticable from the want of stone, or where the soil is of such a nature that stone drains sink, or fill, so as to be useless. We had the pleasure two years since, of examining the improvements making by Judge M'Call in this respect, and the change draining had effected in some of his fields was great indeed. Since the letter of Judge M'Call reached us, we have received the latest number of the Quarterly Journal of Agriculture, and find an article in that on the same subject, in which wood underdrains are highly spoken of. Cross sections of such drains are given; one square, or wood top, bottom and sides, and one of three pieces, a bottom and two side pieces, meeting at the top in a triangle form. To admit the water to the tube, the sides are bored full of holes, and when made of larch, they are estimated to last 20 years. Unless the nature of the soil is very peculiar, the tubes would be better, we think, without the bottom piece, and the method practiced by Judge M'Call, of notching the edges, is peferable to boring:

"*Rushford, Allegany Co.* 1841.

On the subject of underdraining, I have tried various ways; such as small or pounded stone, brush as recommended by Judge Buel, and small alder poles; but in all cases where there was quick sand, or soft clay, or decomposed vegetabe deposites in any considerable quantity, they soon filled up so as to hinder the filtration, or prevent the flow of the water. I had so much land that needed draining, and regular stone drains cost so much, that I fell upon the plan of putting in plank, one on each side, from five to six inches wide, and one and a half inches thick, cutting notches half an inch deep on the upper edge, driving down stakes on the inside so as to prevent their turning or falling inwards, and then covered them with a good durable slab or plank, and then filling in the earth thrown out. I have made several hundred rods of this kind of drain, and am satisfied, that while it lasts, it will be equal if not superior to the best stone drain; and if made of white oak or other durable wood, it will last twenty or thirty years. If there should be any soft places at the bottom of the ditch that might let the side plank settle down, I put some pieces of board down at the bottom crosswise; and where there is likely to be water running on to the top of the ditch, it is best, if you have stone, to fill up the drain above the plank with them; if not, put in brush, especially if the earth is adhesive clay.

I had last year a good crop of spring wheat, (where one year before, the soil produced little else than the coarse wild or water grasses) and at the rate of 25 bushels to the acre. I have learned that underdrains have made my swamps good plow land, and the most productive part of my farm: I have learned also that the earth which is obliged to drink up more water than naturally falls upon it from the clouds, is as unfitted for the production of valuable vegetation, as is the besotted drunkard for benefiting the society in which he lives.

With respect, yours, &c. JAMES M'CALL."

We add here that as Judge M'Call was one of the first to carry into effect successfully the conversion of winter into spring wheat by freezing and sprouting, we shall be pleased to learn the result of the experiment he has this year instituted, of winter sowing.

THE WEIGHT OF FIVE HOGS, sold by Dr. S. D. MARTIN, Colbyville, (Ky.) November 26, 1840.—No. 1, weighed 640 lbs.—No. 2, 630 lbs.—No. 3, 660 lbs.—No. 4, 748 lbs.—No. 5, 824 lbs.—Two of them were 3½ years old, and three 2½ years old

DICTIONARY OF TERMS

Used in Agriculture and its Kindred Sciences.

FOLIAGE. The leaves of trees and plants exercise a most important part in promoting their growth; and the functions they perform, have several analogies in the human system. In the leaf, the ascending sap undergoes the changes that fit it for the formation of wood or fruit; it there undergoes the process of aeration, and receives the carbon, which in the form of lignin or wood, constitutes the main structure of the plant. According to Roget, the ascending sap loses two-thirds of its quantity in the leaves by exhalation, and one-third remains to nourish the plant. The part thus evaporated is perfectly pure, all the foreign materials contained in the ascending sap remaining in the part retained. The quantity of sap exhaled in a given time, depends in a great measure on the intensity of the light to which the leaf is exposed. A large portion of the sap not exhaled in the leaf is actually decomposed, and its separate elements, the oxygen and the hydrogen, are combined with certain proportions of carbon, nitrogen and various earths, metals and salts, which form the proximate vegetable products found in the returning sap. It was Dr. Priestly that made the important discovery that the leaves of plants give out oxygen gas during the day time, which could only be done by the decomposition of carbonic gas, in which process the carbon goes to form the plant, and the oxygen to renew the waste made by the respiration of animated nature. Leaves then, are the lungs of plants; and it is in the green substance of them only that these changes are performed. Strip a flourishing tree of its leaves, and its growth is checked at once, its fruit ceases to ripen, and a repetition produces death. This is frequently seen in the case of plum trees, which in favorable seasons for fruit, sometimes suffer a premature fall of the leaf, in which case the fruit never comes to perfection, but remains immature and worthless.

FOOD. The substances taken into the stomach to support life in the man or animal. The proper supply of food and its quality, is one of the most important subjects that come under consideration. If it contain too much nutriment it clogs and overloads the digestive organs, and is productive of a formidable class of diseases; if deficient in nutriment, the muscles become soft and flabby, the strength fails, and if long continued, emaciation and death ensues. The food, then, to produce its proper effect must possess two conditions; one is, that of sufficient bulk to keep the stomach properly distended, without which its functions are impeded; and the other, that of sufficient nutriment or substance that can be converted into chyle and appropriated to the repair of wear and tear of the system. The best food for man or for animals, is that in which these conditions are best united. Thus some kinds of grain are unfit for the horse, given alone, as they contain too much nutriment in proportion to their bulk, and are apt to render a horse feverish and diseased. Wheat and barley are not as good feed for a horse as oats, because in the latter, the proper proportion of nutriment and bulk is nearest obtained. A smaller quantity of wheat or barley with sufficient cut straw or hay to make the equivalent of bulk, would probably render one as good as the other. Indian corn alone has too much nutriment in proportion to its bulk for the horse; but fed with cut straw, it is one of the best, as thousands know by experience. Pure wheat flour has too much nutriment for the health of man; and experience shows that fine flour and fat meat are to man what a diet of wheat and sugar is to the horse. The bran of wheat however, is deficient in nutriment, and unfit for the purpose of subsistence. Plain, common food, in which the extremes of bulk and nutrition are avoided, is doubtless the most conducive to health, and those that subsist upon such, are the best able to labor, or endure severe exercise. Much of the value of food is depending on the ease with which it can be digested, and applied to the purposes of nutrition, and the experiments of Dr. Beaumont on the living stomach, furnish the best guide in this respect that can be found. The following table is copied from a long list of substances experimented upon by him, giving the time required for the digestion of the substances named:

Article.	*h.*	*m.*	*Article.*	*h.*	*m.*
Boiled rice,	1		Veal,	4	
Sago, tapioca, barley and boiled milk,	2	15	Wheat bread, fresh baked,	3	30
Tripe and pig's feet,	1		Corn bread,	3	15
Fowls, beef's liver,	2	30	Sponge cake,	2	30
Hard eggs,	3	30	Succotash,	3	45
Soft "	3		Apple dumpling,	3	
Custard,	2	45	Apples sour and mellow,	2	
Trout, boiled or fried,	1	30	" sweet and "	1	30
Other fresh fish,	3		Parsneps boiled,	2	30
Beef, rare roasted,	3		Potatoes "	3	30
Dry roasted,	3	30	" roasted,	2	30
Salt beef with mustard,	2	30	Raw cabbage,	2	30
Pickled pork,	4	30	Raw with vinegar,	2	
Raw pork,	3		Cabbage boiled,	4	30
Mutton, fresh,	3	15			

If food is made fine when taken into the stomach, or cooked, the nutritive power is much increased. This principle is of great importance in the fattening of animals, and shows the benefit derived from cooking or even grinding the materials on which farmers feed their stock, and especially their fattening animals.

FOOT ROT. This is a formidable disease of sheep by which great losses to the sheep grower are at times sustained. It has not as yet become common in this country, but cases have occurred to show its existence among us, and the introduction of foreign sheep may not be without its influence in the spread of the disorder. Its first symptoms are a slight lameness, accompanied with fever, which is succeeded by a swelling about the heel or between the toes, followed by a suppuration and loosening of the hoof. If not checked, the hoof falls off, and the sheep is obliged to walk on its knees to feed, but it most usually perishes from the complaint and emaciation before it reaches that state. In its appearance and effects it much resembles the hoof ail which is occasionally so fatal among cattle, in some parts of the United States. The foot rot rarely occurs where sheep are fed on dry hard soils, or on short pastures. It most commonly makes its appearance in flocks fed on rich soft pastures or meadows, where abundance of food is procured with little exertion, and particularly so, if the meadow or pasture is moist and damp. Doubts have existed as to its contagiousness, but the general opinion seems to be that the treading of sheep on matter from an infected foot, when the sound foot is softened by moisture, or when cracks exist in the hoof, will produce the complaint. When the disease is discovered, the flock should be immediately removed to dry hard pasture, and if compelled to "work for their living" for a while, the effect will be good. The hoof must be pared around the infected places, taking care not to wound the sensible parts, and what is called the foot ointment laid on every part, which may be effected with a feather. Some practice covering a spot with fine quicklime, on which the sheep is obliged to stand for a few hours. Perfect dryness of the feet seems essential to a cure.

The following composition has become celebrated in England and Scotland, for this disease. "Corrosive sublimate one ounce; blue vitriol two ounces; verdigris two ounces; white copperas four ounces, dissolved in half a bottle of white wine vinegar, and apply it with a feather." In addition to this, Mr. Laidlaw used a mixture of tar and common salt with much success, especially in moist or damp weather. Mr. Dick attributes the disease to want of action in the animal, and by living on soft, rich ground, having the horny part of the hoof overgrown and pressing on the tender parts, a result not likely to happen where dry hard ground, or short feed, is found in sheep walks.

FOUNDER. When after severe traveling, violent exercise, or hard work, a horse before he has time to cool is allowed to stand with his feet in cold water, or drink his fill of cold water, the sudden change of temperature produced, is apt to produce acute inflammation of the lungs or the feet, oftener the last. The earliest symptoms are uneasiness, frequent moving the fore feet, but rarely pawing or striking at the belly with the hind feet, as in bots, colic, &c.; as the pain in the feet increases, he frequently places his nose on his feet, or looks at them, and finally, as if unable to support his weight, lies down quietly, or sometimes stands until he falls. Sometimes, but very rarely, a change of temperature from a cold air to a warm stable, will produce an inflammation similar to the other cause, and result in acute founder. Fever, induced from excess of grain, also occasionally produces founder, and from whatever cause the fever arises, the treatment must be the same, as, if unchecked, the worst consequences ensue. On examination, the feet will be found very hot, and a violent pulsation of the pastern artery can be felt. He will soon be unable to walk; as the fever progresses he refuses to stand, and if the disease is not relieved, the hoof will be lost. It is true a new hoof may grow, but it will be smaller and weaker, and never be fit for severe work.

The first thing to be done is to reduce the inflammation. Bleeding is here most to be relied on. If the disease is confined to the fore feet, four quarts of blood should be taken as soon as possible from the toe of each. Poultices of linseed meal made soft, should cover the whole of the foot and the pastern, which will have a tendency when frequently renewed, to soften the parts and relieve the painful pressure. Medicines proper in fevers, should also be administered, of which digitalis and nitre are the most sedative and cooling. If the fever in the foot remains high, a second bleeding is justifiable, and cloths wet in a solution of nitre may be applied. If the fever can be removed before suppuration, or the parting of the hoof at the coronet takes place, there is hope of saving it, and a speedy cure may be anticipated; if this is not done, the cure will be doubtful and protracted.

FREE MARTIN. When a cow has two calves, one a bull, and the other in appearance a heifer, the last is termed a *free martin*. Such a heifer is unfit for the propagation of the species, being barren, while the bull calf will be as serviceable as any. When grown, the free martin is to appearance a cow, exhibits sexual inclinations, and has been known to receive the male, but except in very rare cases without effect. The cause of the barrenness was found by the celebrated John Hunter (who dissected several for the purpose) to lie in a peculiar vaginal and uterine organization, which in effect constituted the animal a hermaphrodite, and effectually prevented conception. Dr. Allnott of London has also recently dissected several, and arrived at the same conclusion. In the few instances on record where free martins have bred, the female has preponderated so much over the male as to render procreation possible. The barenness of the twin female is a singular anomaly, and confined so far as appears to cattle, as all other female twins are as prolific as others. It is singular that the ancient Romans should have applied the name of *taura* to a twin heifer, thus indicating that she possessed in part the nature of a male. Free martins work well in the yoke, are strong and kind workers together or with an ox. Unlike the spayed heifer, the free martin is particularly on the alert when the cows are in season. A curious account of the internal organization of the free martin may be found in the Philosophical Transactions, and in an abridged form, in Youatt's English Cattle.

FREEZING. The freezing point of the thermometer is 32°, and when water, or the sap of plants, are cooled below that, they become solid or freeze. All fluids expand in freezing or crystalization, and on this fact the effect of frost on plants, or on the earth, is mainly depending. All vital organization has a tendency to resist frost; hence a thermometer placed in a living tree indicates a greater temperature under the same circumstances than in a dead one; and every one knows that dead flesh freezes sooner than that which is living. Plants are frequently destroyed by frost, when overtaken by it while in the vigor of growth, as the expansion of the juices in that state bursts the tender vessels and death ensues. If the wood of the tree or plant has ripened, that is if the juices have performed their functions, and been converted by the leaves into the substances that go to make lignin, (see foliage,) the freezing produces little or no injury. In that condition the plant is in a state of hybernation, and its circulation and vitality are mostly dormant. The series of experiments entered upon by Professor Lindley of the London Horticultural Society, and conducted with great skill, to ascertain the effects of frost on plants led to some interesting and valuable results. One of them was that of a great variety of American plants and trees cultivated in the gardens of the Society, those from the northern part of the United States were much more frequently destroyed in the temperature of London than those from the southern part; a result explained by the fact, that the diminished temperature retarded the circulation and aided the ripening of the wood in plants from a warmer climate, while the increased temperature kept the plants from a northern climate in a state of growth too late for the wood to ripen. Thus flowers kept in pots in a chamber are more liable to be killed at night, if the temperature of the room during the day is much elevated. Thus too, trees which are on a dry poor soil are less liable to be killed by frost, than those grown on a rich warm moist soil, as the growth of the latter is prolonged to a later period of the year, and their ability to resist frost consequently diminished.

The freezing of wheat, however, causes more loss to the farmer and the country, than all the other losses from frost combined. When a soil is tenacious, or contains a large proportion of clay, and by its position or want of drainage abounds in water, as such soils usually do, there is great danger that wheat sown on such lands will freeze out or winter kill, as it is termed; and examination will show there are very few farms or fields where wheat is sown, where more or less plants are not destroyed by this cause. The destruction is usually performed in the spring months, when the ground is bare, and freezes at night after thawing during the day. Wheat has two sets of roots, one of which springs immediately from the kernel sown, and is generally some three or four inches beneath the surface; the other springs from the stem immediately at the surface of the ground, and spreads nearer the surface than the set below. A stiff wiry stem connects the two sets. When the frost is out of the earth, all these roots are free, and the plant may be drawn entire from the earth. When the surface only is thawed, the lower set of roots remain firm, and cannot be moved except by breaking. When the surface thaws during the day, it becomes saturated with water, and this freezing at night, expands and lifts the upper set of roots. If this process is repeated for several nights and days in succession, the result is that the connecting stem is broken, and the upper roots are exposed on the surface to a temperature that destroys them. Where a soil is friable, or is not naturally retentive of water, or has this defect cured by thorough draining, this separation of the roots cannot take place, and if the lower set of roots should be started at all, they are hardly ever raised so far as to cause the death of the plant. There are very few soils where this evil exists which may not be cured by draining and subsoil plowing, and as it is one that seriously lessens the amount of crops, and the profits of the farmer, it deserves the consideration of all.

CAPACITY OF THE STOMACH.—It is well known there are some animals possessed of the power of swallowing a sufficient quantity of food at once to last for a long time, a precaution rendered necessary by their precarious life; but that men were capable of such a distention of the stomach has been but lately proved. Admiral Saritckef asserts that a Yakutks in his company would consume in twenty-four hours a quarter of a large Siberian ox, twenty pounds of fat, and a quantity of melted butter for his drinks. Once in his presence and in the way of a lunch, after an enormous breakfast, he swallowed twenty-eight pounds of thick rice porridge, with three pounds of butter. Capt. Cochran asserts he has repeatedly seen one of his Tongouse attendants devour forty-eight pounds of meat in a day, and that three of them would consume a rein deer at a meal.

NOTES FOR THE MONTH.

FOREIGN NOTICES, as well as a large quantity of other matter prepared for this month, we are obliged to omit for want of room.

THE FARMER'S MONTHLY VISITOR.—Two volumes of this excellent paper have been completed, and a third commenced with the present year. Gov. HILL has brought to the aid of this work, the untiring industry and strong common sense for which he is so justly celebrated, and we are not surprised to learn that its success has been such as to encourage him to new efforts to increase its usefulness. He has made it indeed a welcome and beneficent Visitor to the Farmer's fireside, and it cannot fail to increase rapidly in circulation as the beneficial influence of agricultural reading becomes more generally understood. Terms 75 cents a year—three copies for $2. Address Hon. ISAAC HILL, Concord, N. H.

THE FARMER'S REGISTER.—The Carolina Planter, published the year past at Columbia, S. C., has been united with the Mr. RUFFIN'S FARMER'S REGISTER, at Petersburg, Va., which is hereafter to be issued in a weekly as well as monthly form—the weekly, 16 pages octavo, and the monthly 64 pages as heretofore—the price of each $5 per annum for *two* copies. A new vol. (the 9th,) commences with this year. We perceive by a notice in the last number, that complete sets of this valuable work, from the commencement to Jan. 1842, 9 large octavo volumes, may be had for $22,50. We recommend it heartily to such as wish to make a valuable addition to their Agricultural libraries. Address E. Ruffin, Esq. Petersburg, Va.

THE MAGAZINE OF HORTICULTURE, is the only publication in this country expressly devoted to Horticulture, Floriculture, Botany, &c., and should be in the hands of every fruit grower and florist. The Feb. number contains a descriptive catalogue of 107 varieties of Apples, which have produced fruit in the Pomological Garden of R. MANNING, Esq. Salem, during the years 1839 and 1840, which we should be glad to transfer to our pages, could we make room for it. The Magazine is published by Hovey & Co. Boston—$3,00 a year.

JOURNAL OF THE AMERICAN SILK SOCIETY.—We are gratified to learn that this Journal is to be continued, the 1st and 2d numbers of the 3d volume having just come to hand. It is conducted by G. B. SMITH, Esq., and is a work which should be taken not only by those actually engaged in the silk culture, but by all who desire its prosperity. $2,00 a year—new subscribers will be charged but $4,00 for the 1st, 2d and 3d volumes. Address the Editor, Baltimore, Md.

LARGE HOGS.—There was exhibited in the Center Market in this city on the 22d of Feb. four hogs whose dead weight was as follows:—the 1st, a full-bred Berkshire, 2¼ years old, weighed 685 lbs.—the 2d, Berkshire also, 3 years old, 655 lbs.—the 3d, half Berkshire, 2 years old, 587 lbs.—the 4th, 2 years old, 500 lbs. A hog, raised by Mr. P. MOSELY of Lebanon, Madison County, N. Y. was exhibited in this city on the 29th of January last, which weighed alive, 1,255 lbs. He was 2¼ years old. His keepers were taking him to Washington, as a present to the President elect. We find in an English paper, an account of a still larger pig, owned by Mr. John Hartshorn, Marshpool, and which weighed 1,680 lbs. Mr. H. has another weighing 980 lbs.

PROLIFIC.—We are informed that Mr. JOHN CROSS, of South Westerloo, in this county, has a sow which has brought him 47 pigs at three litters—at the 1st litter 13; 2d, 19; and at the 3d, 15. Two of the last litter, (11 months and 2 days old,) were killed Feb. 1, 1841, and weighed (one 380 lbs. the other 406 lbs.) 786 lbs.

PRIZE FARMS.—The Massachusetts Society for promoting Agriculture, have awarded four premiums for farms, as follows:—For the best cultivated farm, to ABEL MOORE of Concord, $200—for the second best, to PAOLI LATHROP of South Hadley, $175—the third premium of $150, was divided between Mr. WINCHESTER and Mr. SALISBURY, as was also the 4th premium of $100, between Mr. REED and Mr. CONVERSE.

SUGAR BEETS.—The Boston Cultivator states that Col. E. Falkner of Acton, fattened a cow nineteen years old, on beets and meal. She was poor in the fall; he fed her only ten weeks on about three pecks of beets and half a peck of meal per day, and the beef was good enough for an epicure.

CORRECTION.—The weight of the pig mentioned by M. Y. T., p. 39, was 372½ lbs. instead of 272½.

SNOW STORM IN SCOTLAND.—In January 1794, a snow storm occurred in Scotland, which for its destructive effects has never been exceeded. Prof. Low, in his work on British Animals, gives an interesting account of it, from which we make the following extract, which will give some idea of the immense damage occasioned by it. "A number of the rivers on which the storm was most deadly, run into the Solway Frith, on which there is a place called the Beds of Esk, where the tide throws out and leaves whatever is carried into it by the rivers, where, after the storm subsided, there were found on that place, and shores adjacent, 1840 sheep, 9 cattle, 3 horses, 2 men, 1 woman, 45 dogs, and 180 hares, besides a vast number of smaller animals."

FREAK OF NATURE.—The Agriculturist says that "Mr. Lewis Joslin, seven miles from Nashville, who is well known to the community as a gentleman of veracity, informs us that one of his flock has brought forth a lamb with but one eye, and that in the center of the forehead."

"In Agriculture, EXPERIENCE is of great value—THEORIES of little, excepting as they are directly deducible from actual experiments and well attested facts."

Letter to Solon Robinson, Esq.

DEAR SIR—Permit me to offer you my very sincere thanks for the kind and friendly feelings which you have expressed towards me in your late letter published in the February number of the Cultivator; and to assure you most truly, that I estimate them highly. But I have another motive for addressing you at this time. It is to condole with you on the bitter disappointment which I am sure that *you* especially, as well as all the other friends to a National Society of Agriculture must feel, in learning from the worthy Editors of the Cultivator themselves, that we must not, at least for the present, look to them for any aid towards the establishment of such an Association. After stating many reasons, in which I doubt not, that these gentlemen conscientiously confide, they conclude with these most discouraging words: "*When the time arrives in which such an Association can be organized with a reasonable certainty of success, we trust that we shall not be found backward in aiding the enterprise to the extent of our abilities.*"

Now I call these words discouraging, because the public press not only forms, but governs public sentiment in this country, more, probably, than in any other country on the face of the earth. Our political journals give most of us both the law and the gospel in politics, while our agricultural papers do the same in all rural affairs. Hence, I will venture to predict, although I am no prophet, that if all the Editors of the latter, not only keep silent in regard to the establishment of a National Society of Agriculture, but actually discourage the attempt to form one, we shall see it, (according to the old saying,) "*when two Sundays come together;*" since the arrival of that "*reasonable certainty of success,*" for which our friends Messrs. Gaylord and Tucker say they must wait, can never arrive at all, unless it is brought about by those very papers which guide and govern the opinions of the great majority of those who read them.

Another argument used by these gentlemen in opposition to any present attempt to establish a National Agricultural Society, is, that "Agricultural Periodicals in a great measure perform here, the part which Farmer's Clubs, Associations and Societies, do in the more densely populated farming districts of Europe." Now it really seems to me, that if *this* be a good reason against attempting to form a National Society of Agriculture, it is nearly or quite as good against every thing of the kind, either in our States, Districts, or Counties; for none have any thing like as dense a population as the "farming districts of Europe;" nor will probably have for many generations to come. Although I deem this a legitimate conclusion from the premises, I will not suppose that our friends designed that their remark should be so understood; for they have expressed themselves, on various other occasions, as great friends to local Associations for Agricultural purposes.

The foregoing considerations, my good sir, have "thrown me all aback" in regard to the project which we both have so much at heart; and the cold water thrown upon it in this icy weather, by our good friends of the Cultivator, had chilled me so thoroughly, that I was a long time in recovering sufficient warmth to start another scheme for effecting our purpose, since they will not aid the one proposed in your letter. If mine also fails, I will then agree, but not until then, that Messrs. Gaylord & Tucker are right in thinking that the time has not yet arrived for accomplishing your design, and that we have been wrong in adopting a contrary opinion.

My scheme is as follows:—Let some friend to the object of it—and surely at least *one* may be found in each Congressional District within the States most convenient to the seat of the general government—endeavor to obtain a written promise from any one intelligent farmer of good reputation as such, to attend at the city of Washington, provided one hundred others will give similar promises, for the purpose of organizing a National Society of Agriculture. Then let these promises be forwarded by the members of Congress from the Districts in which they may have been made. The extra session which will probably be held, will furnish an early and good opportunity; and the papers containing the pledges to attend, might be directed to some friend of the scheme in Washington. I will venture, without consulting him, to name Mr. ELLSWORTH, the Commissioner of Patents, for I do not believe there is, in the United States, a more zealous friend than himself to the great cause of American Husbandry. The only trouble he need take, would be, to count the names in the papers directed to him, and if there were as many as a hundred, to publish the fact in the public journals, and to name some early day for the meeting. Should he deem it inconvenient to act, and state it in the Cultivator, I myself, if able to go, would attend at Washington for the purpose; and should deem myself most amply repaid for my trouble, if I found the requisite hundred names of "good men and true," both ready and anxious to execute a plan for the good of our beloved country, which, in my humble opinion, would render her a more essential service than any that could be devised unless it were one for the moral and religious education of our whole people. Without *this* vital element of national welfare, we never, no never, shall be a happy people, whatever other condition we may attain in that reckless and wicked struggle for supremacy in political power, which seems, at present, to have distracted all the nations of the earth.

Before I conclude, permit me to acknowledge that you and our unknown friend near Boston, whose approval of your scheme is mentioned by Messrs. Gaylord & Tucker, were both right in differing from me relative to the aid to be expected from members of Congress towards its fulfilment. A moment's reflection would have prevented me from even imagining, that *they* (generally speaking,) would be prevailed upon by any thing less than the danger of losing their seats, to encourage, or even to think of any project which is totally exempt from party politics. These, and these alone, for a long and most distressing time past, seem to have occupied nearly the whole time and thoughts of our public functionaries, while the great interests of the nation have been so deeply and vitally wounded, that it will require for their restoration, the constant exertion, for many years to come, of all the talents, wisdom and virtue which can possibly be concentrated in our public councils. But enough of a theme which no true friend to his country can ever contemplate, without the most heart-sickening reflections and anticipations.

I will now bid you farewell, with the sincere hope, that you at least, may live to see your favorite scheme accomplished, as you may then have the pleasure of counting our present gainsaying friends of the Cultivator among its warmest supporters. Without doubt they will prove most powerful co-laborers in improving the structure when once the foundations are laid, although they have declined leading the van to fix the corner-stone, which no one can regret more than you and their personally unknown friend,

JAMES M. GARNETT.

Essex Co. Va., Feb. 17th, 1841.

Feeding Swine.

JANUARY 1.—Shut up 41 store hogs—spring pigs. Fed with boiled potatoes, and provender and meal. Feb. 4.—Up to this date have fed out 105 bushels of potatoes, and 14 bushels of provender and meal. Pigs thriving as fast as is desirable, living in fine condition. Used up 4 loads of wheat straw in the time for litter. The account stands thus:

Pigs Dr. to Farm, for 105 bush. potatoes, 1s		$13 13
" " " " 14 " provender, 3s.....		5 25
" " " " ¼ cord wood 8s. used in cooking,		50
		$18 88

Do not charge them any thing for the straw, as I am glad to get it used up. It has cost then, $18.88, to feed 41 hogs 35 days, or one cent three mills and a half per hog per day. It adds much to the profit of pork making to keep store hogs in good order through the winter.

After various experiments, the best mixture I find to be, 16 bushels of potatoes boiled, and while hot add two bushels of meal, or its equivalent in provender. The potatoes should be well mashed, before the meal is stirred in. I mash the potatoes in the same water in which they are boiled. I am aware that there has been an impression that the water in which potatoes were boiled was injurious; but have fed out over 300 bushels this fall, and found no bad effect yet. Water is added to fill up the vat, holding about eight barrels. I neglected to add to my account above, one peck of salt, used during the time; but my charge upon the wood and provender is high enough to cover it.

I find a great advantage in cooking oats for horses, having followed it now for three months, and intend to do so through the year. I think there is a clear saving of at least one-fourth. Yours respectfully,

Darien, N. Y. Feb. 6, 1841. T. C. PETERS.

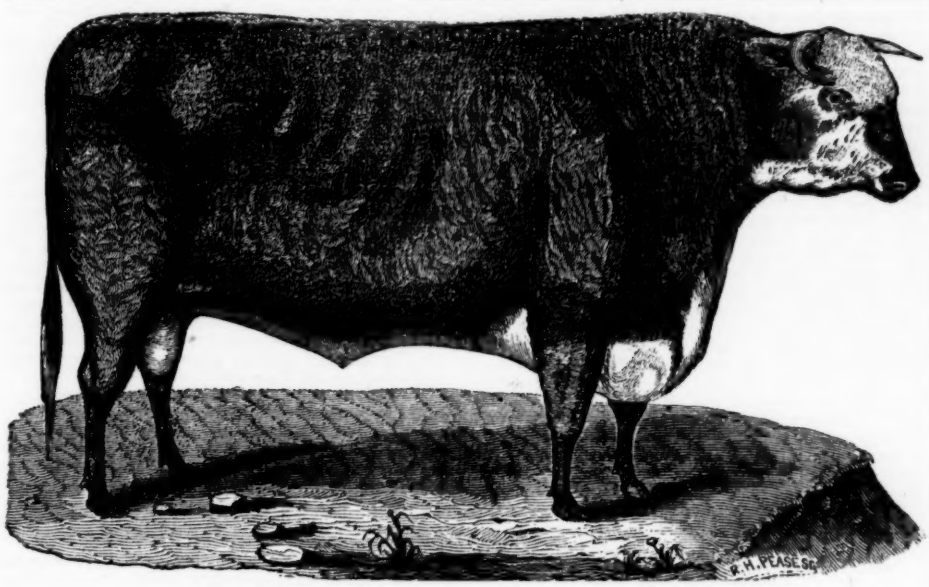
Prices of South Down Sheep.

MESSRS. GAYLORD & TUCKER—In reply to your correspondent, who inquires for what prices he can have South Downs, delivered on board a packet at New-York, will you allow me to say, my price at the yard is from $20 to $50 each; and that the additional expense would be from one to three dollars—though there is not one in the flock but was selected in England, by one of the best judges in the country (except the lambs of such without admixture) and cost me here an average of near $35—that though there is a very great degree of sameness in their appearance and perfect purity of blood in all, though from entirely different families, yet so important has it been thought by judges in procuring the nucleus of a stock, to secure not only the best kinds but the best animals of the kind, that the difference has not been thought too great, and though I hope the time is not far distant when the numbers in our country shall reduce the price, I cannot wish to see less discrimination exercised, for on that do I believe the value of any stock, native or otherwise, is dependant.

The breeders of South Downs in England, who may be supposed to understand their interests in this matter, frequently pay as high as from 50 to 80 guineas a year, for the use of a buck, and South Downs are no new thing there, nor would they at this time, have been so here, but for the rigorous laws which formerly prevailed in England against their exportation, while Spain was kindly furnishing us all the Merinos we chose to take at from one hundred to one thousand dollars each.

Truly yours, E. P. PRENTICE

Mount Hope, near Albany, Feb. 18, 1841.



HEREFORD BULL, SIR GEORGE.—(Fig. 26.)

The Herefords and Short Horns.

Messrs. Gaylord & Tucker—In looking over the back numbers of the London Farmer's Magazine, I find in that of September, 1837, a portrait of "Sir George." I send you a cut from it (fig. 26,) for insertion; and as he is the sire and grandsire of a portion of our Herefords, I copy the accompanying account:

"The subject of the plate is a Hereford bull, called 'Sir George,' the property of John Hewer, Esq. of Hampton Lodge, near Hereford. In giving some description of him to our readers, we cannot do better than quote Mr. Hewer's own account of him:—'Sir George, now ten years old, was got by Waxy; Waxy by Wellington, his dam Beauty by old Wellington the sire of Wellington. They are of the old original blood, and I believe confined to myself. Sir George has won five premiums.'"

I send you this account to show a portrait of the original breed; and it is my intention to answer, as briefly as possible, the remarks of Mr. Randall and Mr. Hepburn. The latter says, I have "selected my weakest adversary, confident of an easy victory." I know not why, when each derives his information from the same source, both making many quotations from theory; the language of one may be rather more *classical* than the other, each grounding their hopes of success on the *name* of a standard work, that standard not written by a breeder. Mr. R. launching out with similes from other writers, and then says—"But after all, I am not convinced that the Herefords have been converted into Durhams." And I see from the extract of the Hon. Henry Clay's letter, that his cattle must have been selected from such breeders as Mr. Youatt describes, *not from the best*; therefore I perceive nothing *formidable* in any remark from either, that would cause me fearful thoughts of an overthrow. If I cannot gain a victory *justly*, I shall not feel entitled to the reward.

Now, gentlemen, I am quite willing to take you individually or collectively; you may quote theory back to the fall of Adam if you choose, and breed cattle from that instruction, and if you do not possess a fallen race, I shall be mistaken in judgment.

If we are to enter into a detailed controversy we must suggest some means of bringing it before the public for inspection and decision; the Cultivator, (according to your account,) is pressed with too much important matter to admit long articles; this can be agreed upon, and winter evenings are best for a farmer's study. I do not see any thing more to be noticed at present in Mr. R.'s article, further than this: he presses me to challenge the Short Horn breeders for milking. I am not disposed to give challenges, but as he has called it forth, I will show a milking cow in May next, against him or Mr. Hepburn, for a silver cup, value $15—mine shall be a *pure Hereford*, my opponent's, a *pure Short Horn*. I shall not extend it unless it is urged upon me. Mr. H. says "accor ling to my own showing, many a good ox has been bred from an inferior animal;" I should like to know when this assertion was made by me; have I acknowle lged the Hereford cow inferior, because Youatt has? Never; this must be a *wild* thought; probably I have seen as many of the best oxen of this country as Mr. H. or any other person. In the fall of 1838, I purchased myself, for barreling, nearly five thousand head of cattle, in the western country, in the course of two months, and was engaged in that business four years previous, where from four to six thousand were slaughtered annually, selecting the best for the New-York market; and in the whole time I did not see an ox that was bordering on goodness, (for what I call a show beast;) *good breeding* must be looked to, for such an animal, and requires as much skill as it does to breed a bull or cow. I should have been much surprised at this remark from a *breeder* had I not known he was led astray by the study of theory alone. Mr. H. may have seen large oxen, but I doubt whether he ever saw the first quality. I shall leave the breeders of our cattle to answer the *unwarrantable attack he has made on them. I shall only tell him that were they disposed to "steal" crosses, or represent them pure* when not so, they could not show them for a premium—a true certificate of their pedigree is demanded. If they are entered as pure Herefords, they must prove so, or the beast is disqualified, the owner erased from the list, and never allowed to show an animal again. Matchless was entered as a pure Hereford, won the first prize, and I *defy any man to prove there is a drop of Durham blood in her veins*, or any other of our animals that I say are Herefords. I hope this is plain enough for Mr. Hepburn. We have a half bred Durham heifer, as I have before stated, and a man that can *distinguish a mule from a Spanish ass*, can see this cross, though I think her a superior animal. I refer these gentlemen to the late numbers of the Farmer's Magazine, to peruse the letters of Mr. Price and Mr. Bates; there they may profit from practical knowledge, and see what the Herefords were forty years ago in their estimation.

I was honored by a letter from the Earl of Warwick, a few days since, which I send you, and trust his Lordship will not feel displeased at his name appearing in your valuable paper; much information may be gleaned from it.

I think I may say with confidence, we have just received from R. Lovel, Esq., Edgecott Lodge, one of the finest Short Horn heifers, coming three years old, that has ever crossed the water. I will send you her likeness and pedigree at some future period; she is a *pure* Herd Book animal.

I could say much on Mr. R. and Mr. H.'s articles, but will leave it to consult your space, or some other means to do so. Their ideas of arriving into notice as breeders, in six or eight years, are quite ridiculous unless at an enormous expense to start with.

Yours sincerely, WM. H'Y SOTHAM.

Perch Lake Farm, Jefferson Co., N. Y. Feb. 1840.

Letter from the Earl of Warwick.

7 *Carlton Gardens, Dec.* 28, 1840.

Sir—I received your letter of the 13th of November, and accompanied by a Cultivator paper; your wishing an answer, induces me send one, but not breeding myself any Herefordshire cattle, I fear I have little satisfactory to communicate; or any breeding stock on my farm to show you should you visit this country. I consider they can breed better stock in the counties where the soil is best adapted to it, and where the whole attention of the farm is devoted to that object. I therefore buy in my stock poor, between two and three years old; fat them and feed them off for the butcher as I can get them ready, on grass, for summer keep, Swede turneps, (on which I mostly depend) and hay for the winter keep, with some finish only of oil cake when necessary. To do which it would be immaterial to me what breed I bought, or where, depending on what would grow and fat fastest, as good butcher's beasts, the butcher being my customer; and I have no doubt the Herefords are the best breed for such objects; and notwithstanding well bred ones are bought very dear, (a proof of their estimation,) I think they pay best for their keep, turning into money fastest for the food they eat, and less liable to casualties, from the thriving disposition of their constitutions to do well, and lay on flesh while growing. I send into Herefordshire and buy in lean young stock of the best breeders, not trusting to the fairs; I know how *all* are bred.

The ox I won the first prize with at the Smithfield Show last year, (and the best beast of any class shown, ninety competitors,) I so bought as a three year old, (with many more,) for £17, lean. He ran with the other steers, and was put up with them to fat, and I never thought of sending him to Smithfield till two months before the show, as I never sent a beast there before. After the show, I sold him to a London butcher to kill for £70. There is a wretched print of him in the London shops. The painter who did his picture *for me* is Mr. Davis, animal painter to the Queen, and lives at Chelsea. He has made a very good colored engraving, and one of which I shall be very happy to procure for you, if you will have the goodness to write to me when you arrive next summer in England.

We breed some pretty good Leicester sheep in Warwickshire; my bailiff will be very happy to show you any thing I may have, if you are likely to be that way. I only breed sheep—we consider nothing like the Leicester for long wool, and South Downs for short. A *Leicester* tup has been known to let for the season for £1000. My house in London is 7 Carlton Gardens.

Your obt. servt. WARWICK.

W. H. Sotham, Esq.

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Messrs. Gaylord & Tucker—Since writing you, I learn from Mr. Thornton, (the person who has charge of our stock,) that the heifer Spot, by "Sir George," coming three years old, calved on the 18th of January; is now giving from five to six quarts of milk daily, over what her calf sucks; he is a fine bull, thriving very fast, is her first calf, and lies loose in the stable with her; her feed has been cut straw and hay of about equal quantities, mixed with about a peck of bran. Gay is the dam of Spot, whose pedigree may be seen in the July number of the Cultivator. Yours sincerely,

Albany, Feb. 20, 1841. W. H'Y SOTHAM.

Indian Corn—Production of a New Variety.

Messrs. Gaylord & Tucker—Some years since I obtained from our friend the late Judge Buel, a few quarts of Dutton corn, but it did not answer my expectations as to earliness, and I then determined to manufacture a corn which would be perfectly safe from frost in our short seasons. As the Canada corn was decidedly too short in the ear, I concluded to try the experiment of putting the early corn on the white flint cob. I preferred the white flint cob as it was long and small, and consequently would not retain the moisture as long as the large cob. I therefore on the 20th of June, 1838, planted several rows of the white flint, leaving one-half of the ground for the early corn, which was planted on the 1st day of July; and the earliest ears were ripe enough to pick for seed on the 16th of September. The product was a sulphur colored corn, produced by pulling the tassels from the white flint, and allowing the silks of that corn to be impregnated by the tassels of the yellow corn. I planted that corn in 1839, and the product was on every ear, a mixture of pure white and pure yellow kernels. In 1840 I planted the yellow and white kernels each by themselves, and the product was a pure white and a pure yellow ear. My corn was planted in 1840, on the 16th of May, and on the 20th of August it was ripe enough to cut by the roots. It was planted on land very much worn, and as I had no help, I was compelled to plant it without manure, as I could not manure both potato and corn ground. I also planted quite thick, from which causes the ears were not as long as they would have been under more favorable circumstances, but I had no soft corn. I send you an ear of each color.

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An Experiment in the Culture of Potatoes.

I see there is great complaints from some persons in relation to the Rohan potato; and one gentleman goes so far as to pronounce it a humbug. When a seedsman or other person knowingly sells a worthless seed to the farmer, he should be censured, and I will not complain if they are severely handled; but we should be very cautious how we censure a person without abundant evidence of his guilt, and I am inclined to think the fault is in the culture rather than in the potato in this instance. My crop of Rohans the past season was good, and my other kinds are almost an entire failure; but I could account for the failure without attributing it to the variety. I had seen it stated that potatoes would be some days earlier, if exposed to the sun for several days before covering. I therefore concluded to furrow three acres, and drop them all before covering any. I had potatoes which had been cut two weeks, which I dropped first, and the rest of the piece was cut and dropped immediately; when I had finished, I commenced covering with a plow, covering in the opposite direction from which they were dropped; there are 50 rows of 40 rods in length, 10 of which were covered the day I finished dropping; 20 the next day, 10 the next, and the balance two days after; the result was, those that were covered the day they were dropped, were a good yield, and those which lay for four or five days, almost entirely failed to grow; those which were cut sometime previous to dropping, did not fail near as bad as those which were cut at the time of dropping. The weather during the whole time of planting, was excessively warm, which undoubtedly caused the loss of the crop. The season was not favorable to the potato crop in this section of the country, yet there were individual crops which were very good, several of which were of the Rohans; in some instances two bushels have been raised from a single potato. Yours respectfully.

S. PORTER RHOADES

Skaneateles, N. Y. Feb. 6, 1841.

Discordant Subjects among the Farmers.

The Use of Lime.

MESSRS. EDITORS—Although the agriculturists of the other great divisions of the earth, have availed themselves for centuries, (Pliny informs us that lime was used as a manure by the Romans, the Gauls and the Britons in his time,) of the extraordinary virtues of this mineral, to improve the soil or prevent exhaustion, and it is now being applied lavishly by the very best farmers of our country, with incalculable advantage on every variety of soils, yet the mass of the people of the United States, are obstinate skeptics with regard to its fertilizing properties. We admit some agricultural districts continue very productive without any application of lime; but these soils *all*, either are found to contain a due proportion of carbonate of lime, or they are plentifully supplied by their owners with animal manures, which contain the necessary alkaline substances for vegetation; however, the addition of lime, still would produce wonderful effects eventually. Lime being an essential constituent of the pabulum of plants, none perhaps requiring in their organization a larger proportion of lime than wheat; without lime being contained in the soil, *gluten*, an important component property in the grain of wheat, cannot be formed; hence the necessity of supplying soils which have been exhausted, or have been in their natural formation destitute of carbonate of lime. It is *just as necessary* as to furnish fowls with lime and silex, in the absence of which their eggs would be laid without shells. Why then, is it, that the farmers of New England, and indeed many in this and other States, cannot grow wheat on soils *now*, which yielded golden harvests to their orignal pioneers? The reason is plain and incontrovertible; the farmers have exhausted their soils of the necessary constituents of wheat, and especially lime! So let them supply the defective material at any reasonable expense, and their lands will produce as formerly. Eventually the farmer's success and prosperity will *almost* hinge on the regular and judicious application of lime, or other alkalies, in its absence. —

Beets or Roots for Stock.

On this subject, our farmers appear to be fairly confronted. I too, have been prejudiced in their favor, and gave them a fair trial, using them as a collateral food, in addition to plenty of other feed. I valued them fed with corn fodder and timothy hay, to act as an aperient with dry fodder. But I have since substituted the augmenting for the depleting system, so far as hay is concerned; I now make nearly *all* clover hay, on the highly improved method adopted by Judge Buel, and the same mode has been still longer adopted by an old obscure tho' discerning and extensive German farmer in this county, west of Lancaster, whom I could wish sufficient education to record his experience in the cultivation of the soil. I can bear ample testimony to the superiority of clover hay thus made, preserving the flower, blade and stem sweet and fragrant without waste. It requires no opening medicine like timothy, to keep the hide from adhering and growing to the ribs, to say nothing of its superior ameliorating properties to the soil. The idea of an acre of land which would make two tons of hay, producing from fifteen to twenty tons of beets, held out bewitching inducement to "go in" for beet culture, but finding that they afford a mere condiment to stock, and relying on the representation of chemists, that the common sugar beet contains 85 per cent of *pure water* and 5 of pithy or ligneous substance to 10 per cent *only* of nutriment, I have concluded that a very large quantity of beets afford a very small quantity of real nutriment, and that they have a fictitious value. Potatoes contain 20 to 25 per cent of nutritive matter, carrots and parsneps 9 per cent, and ruta baga 6 to 7 per cent of saccharine matter. So that potatoes will actually afford as much nutriment although they yield less quantity. And here I may be permitted to draw a parallel; the farmer who extirpates the necessaries of life from his grounds to make room for the operations of silk culture, certainly substituted the luxuries for the necessaries of existence; so with the present mania for root culture, (presupposing present expectations will be realized,) we find the effort actually made to force mother earth, to produce exuberant root crops, in addition to the usual crops of corn, in order that the farmer's stock, which usually subsisted on a portion of the corn crop, may now live on roots, to make the whole corn crop a surplus, and the quantity then, necessarily in market, produce such depression in the price that instead of being used as formerly, it will be abused in distilling that *mischievous* liquor, called blue ruin or whiskey! Now, I verily believe that the farmer who will take the same liberal means to force a large corn crop, on an acre, will obtain as much and a "*leetle*" more, solid nutriment, than can be obtained from beets on the same ground, and that too, with far less expense and trouble. The truth is evident, that if the agriculturists of Europe could raise Indian corn (it will not mature in Europe.) with the same facility *we do*, we should hear nothing from the other side of the water, on the importance of their *root culture*. —

Mildew.

Theorists, from Sir Humphrey Davy down, generally adopt the opinion that mildew or rust, is produced by a parasitic plant; here, until more tenable argument be advanced, or additional discovery made, I am compelled to join issue. Having cultivated for ten years, up to the present time, a wheat farm, to the exclusion almost of other grain, I profess to be as familiar with the growth and every thing attending that crop, as it is possible for experience and close observation to make us. I hold, that rust or mildew, in addition to atmospheric influence, is the effect of a forced maturing or ripening process. Wheat late sown, or that grown consecutively on exhausted land, as well as all wheat which is injured by the Hessian fly, is most exposed; in the latter case, the main stock, though injured, puts out at its root, tillered branches, which mature in favorable seasons, but in unfavorable, become the certain victims of mildew, being backward, the sap vessels are ruptured by forced ripening; then if wheat be in any case injured by a parasitic fungus it may supervene more as the effect than the cause; because, a flourishing crop, seasonably matured, *always escapes*. Low grounds too, are exposed to mildew, merely because the crop is always late ripening. Here, if I stand solitary and alone in my opinion, I am prepared to dispute my ground inch by inch. Having disagreed with the former memorable and esteemed conductor (whose portrait, very intellectually developed, hangs encased in a neat frame as a monitor before me when I write,) on this subject, I adopt the concluding clause of his comments on my article, contained in the very last number of the Cultivator he issued, and being among the last acts of his life. "We invite liberal criticism; 'tis the collision of flint and steel that elicits light." Respectfully,

W. PENN KINZER.

Springlawn Farm, Pequea, Pa., Jan. 12, 1841.

Making Pork.

MESSRS. EDITORS—I am favored occasionally with an opportunity of looking over different agricultural journals, and in a late number of the Boston Cultivator, I noticed a statement on fattening hogs, part of which I copy for your paper, adding some remarks, and a little of my experience in the same business. The statement is by Mr. Smith, of Duxbury, Mass.

"I killed two hogs, one sow, and six pigs which the sow raised; their weights were, the two hogs 631, and 566 lbs., the sow 509, the six pigs 1,200 lbs. Total 2,906 pounds.

"They have eat 250 bushels of corn at 60 cts. $150; and 200 bushels of vegetables at 30 cents, making in the whole $210.

"My manner of feeding them was as follows: From the first day of September to the first day of March, their breakfast was raw potatoes; their dinner raw turneps, beets or carrots; their supper one quart of corn each. The first day of March I filled their trough with corn and water, and kept it so until the day I killed them. I had a warm place for them to sleep in; and a yard where I make my manure 36 by 20 feet, with a stone bottom, and have now in it, which I have made this summer, 125 horse loads. I care not what the breed of a hog is, if they will eat well, and we do our part, and give them plenty of corn."

Now for my experience. Last year I fed six hogs, about 18 months old. They had the run of pasture, and the slops of the kitchen in the summer, and were put up for feeding the middle of September. To feed them, I put in my hog house 150 bushels of potatoes, and 150 bushels of apples. These were cooked in a steamer containing about 15 bushels, and the proportions used were about equal. All the grain I fed them was not equal in value to five bushels of corn. They were killed the first of December: Lightest 345, heaviest 430, average 375, total weight 2,250 lbs. Mr. Smith does not say what his pork was worth, perhaps $4, perhaps $8 per cwt. If the first, it was worth $116.24; if the last, $232.48. At the same rates mine would have been worth $90 or $180. Now for the expense of feeding. My potatoes were worth eighteen cents per bushel, my apples perhaps 10 cts., certainly not more, making for both potatoes and apples, a value of $42; call the grain $3, and the value of the whole food is $45. Forty-five from two hundred and ten, would leave one hundred and sixty-five as the difference in the cost of feeding the two lots; comparatively the operation would stand as follows:

	No. of pigs.	*Total weight.*	*Cost of feeding.*	*Value at $4 or $8*	
Mr. Smith's,..	9	2906	$210	$116.24	232.48
Mine,.....	6	2256	45	90	180
Difference,...	3	656	$165	$26.24	$52.48

Thus it appears that at the least price Mr. Smith lost in feeding $93.76, and at the highest gained only $22.48; while at the lowest rate mine exceeded the cost of feeding $45, and at the highest $135. It must be remembered, however, that the value of the hogs, and the labor of feeding is omitted in all these estimates, and should be deducted to ascertain the true profit or loss of the feeding.

I cannot agree with Mr. Smith that the breed of hogs is of no consequence so long as there is corn enough. I am satisfied by experience that there is a difference among our swine (excluding the pet breeds of Berkshire and China,) so great, that at the same age, the same quantity of food will make 50 per cent more pork in one breed than in another. I have been led to believe that the true criterion of value in a hog, was, not in the quantity of food he could eat, but in the flesh the food would make. I am sure my brother farmers must love raising corn better than I do, valuable as the crop is, if they prefer feeding pigs a year on the grain unbroken, and the roots raw, to using one-half the quantity of corn so required, when ground and mixed with the same roots, or a larger quantity steamed. In my opinion cooking food for animals is one of the greatest improvements in modern husbandry, and feeding grain as was done by Mr. S. a downright waste; and I am glad to perceive, by his comments on Mr. Smith's letter, that Mr. Buckminster is of the same opinion.

In one thing the statement of Mr. S. has my most cordial assent; and that is in the value of hog manure, and the propriety of increasing it as much as possible. Pigs are excellent workers at that business, if the proper materials are provided. I have a yard like Mr. S., but without his stone bottom. Into this, straw, weeds, and muck, are put as wanted, or as most convenient, and are thoroughly incorporated with the manure and urine by treading and rooting. These materials absorb and retain the parts that would be most likely to escape, and the whole mass applied to a corn or root crop in the spring, will give an increased crop in many cases equivalent to half the ordinary product, and nearly defraying the expense of feeding.

AN ONONDAGA FARMER.

A Remedy for the Grain Worm.

MESSRS. GAYLORD & TUCKER—Western Vermont was very noted for raising grain, especially wheat, from its first settlement until about the year 1820, when the grain worm was first discovered in rye, barley, summer and winter wheat; its ravages were more confined to the wheat crop of the winter variety. This formidable enemy came more and more numerous, until after repeated trials we were obliged entirely to abandon wheat raising. No remedy appeared to present itself whereby we could gain any success. It is but a few years since those who have cast their wheat upon the ground in the fall have been successful. The spring varieties are now more generally sown; which happens about the fifteenth of May, to carry the ripening process beyond the reach of the fly, and summer fallows are going out of date.

In 1837, I tried an experiment which proved successful in avoiding the depredations of the grain worm; since then I have not cultivated the winter grain, and therefore have not again tried the remedy. As soon as the calyx or envelope of the kernel was formed and while the wheat was in blossom, I prepared some boys with traps and hired them to catch an animal well known in these parts by the name of skunk. They caught two of these noxious animals, which I hung up in two different parts of my wheat field about the height of the grain heads; and the result proved on strict examination that within a circle of several rods around these animals, no larvæ or grain worms could be found, and at the same time in other parts of the field, some considerable intrusions of the worm were noticed; but they did not infect this field of three acres to that extent that they did others in the neighborhood. The contrast as I suppose was occasioned by the strong effluvia that spread in all directions over it. I have also noticed that flies never prey upon the carcass of this animal as they are well known to do upon other dead flesh; and I should suppose that all animals that were endowed with but a small share of instinctive common sense, and were blest with but small olfactory organs, would shun the powerful weapons of this animal without one salutation.

The skunk is an animal which we frequently find in the fields, probably the same species and about the size of the pole cat; its hair is long and shining, with one or two stripes from the head along the back and tail, clouded with white, the remainder black; it has a long bushy tail; lives and burrows in the woods and hedges, and often under barns and outhouses. When undisturbed, this animal is without any ill scent, or disagreeable effluvia; but when attacked, the skunk discovers his singular but effectual method of defense. It emits a fluid of the most nauseous and intolerable scent that has ever been known: so odious, subtle, penetrating is the ill-scented matter, that there is no animal that can long endure it, or will venture to approach him when he is throwing it out; it infects the air all round; with the wind it may float a mile or more. No method has ever been found to extract the scent on which the fluid has been thrown; time, earth and air, after a long period afford the only complete remedy. This ill-scented fluid is an unctuous yellow matter contained in two tumors or bags attached to the abdomen, at the termination of the back bone, and surrounded in such a manner by circular muscles that on contraction the fluid is forced out with great velocity and force.

I have taken out these bags, and have no doubt they may be preserved any length of time by drying, or put them in glass jars in which any quantity of twine might be enclosed; by pressing the sack, the cord would become incorporated with the matter; then at, or just previous to the appearance of the wheat fly, which is about the last of June, while the grain is in the blossom, or milk, string this scented cord around and across the grain fields in different directions, and it would thoroughly incorporate the whole field, and I have no doubt form a safe and effectual barrier in preventing the encroachments of the wheat fly, and many other winged insects.

The above, I cheerfully present for your consideration with liberty to publish, hoping it may be of some use to the public directly or indirectly, by leading the way to a more pleasant if not efficacious remedy to prevent the ravages of so formidable an enemy.

Yours, SOLOMON W. JEWETT

Middlebury, Vt. Jan, 1841.

Cobble Stone Buildings.

THE first cobble stone buildings that I remember to have seen, were at Pittsford in Monroe county, nearly twenty years ago; and from the rude appearance of the work at that time, I have supposed the art was then in its infancy; but perhaps some gentleman of that neighborhood will furnish a sketch of its history.

About six years ago the first building of that description was erected in this quarter, one mile east of Aurora; and in my opinion the walls are more beautiful than brick. The beauty of such structures however, will mainly depend on the *size* and *color* of the stone, though the *color* of the sand will have an influence.

If the stone and sand are both dark colored, the building will have a lurid aspect; for the proportion of lime in the mortar (one-eighth or one-ninth) is too small to whiten it sufficiently; but if the sand be a light gray, the contrast of colors with dark stone, will be pleasing.

Cobble stone of any size not exceeding *six inches* in diameter, may be used; but for the regular courses on the outside, those of *two inches* in diameter should be preferred. Small stones give the building a much neater aspect. Two inch stones are very neat, though three inch stones will answer. The inside row of stones may be twice as large as those on the outside.

The mortar is composed of one bushel of fresh stone lime to eight or nine bushels of clean sharp sand. As the strength of the building depends on the goodness of the mortar, it is very important that sand of the first quality should be obtained. Yellow sand, or any sand that contains clay, should be rejected. Gray sand is sometimes found so pure as not to discolor the water into which it is thrown; and such should be procured if practicable.

Mortar that has been made some weeks is generally preferred. Some masons are particular to reduce the lime to a thin paste, and then *while it is hot* to apply the sand.

The thickness of the wall is sixteen inches, though twelve inches will answer very well for the gable ends above the garret floor.

When the foundation, or cellar wall, is leveled and prepared, a layer of two (or two and a half) inches of mortar is spread over it; and the stones are pressed into the mortar in *two rows* which mark the outside and the inside of the wall, leaving about an inch between each adjoining stone in the same row. If the wall is to be grouted, the two rows are formed into two ridges by filling the vacancies between the stones with mortar, and the space between these two ridges (about a foot in width) is filled with such stones as are not wanted for the regular courses. The grout is then applied. If the wall is not to be grouted however, the mortar should be carefully pressed round every stone, making the wall solid without flaw or interstice. When one course is leveled begin another.

Between every two adjoining courses on the outside, some have the mortar to project as far out as the stones, in a regular line round the building. It is wrought to an edge with the trowel, and adds to the neatness as well as to the strength of the wall; for during this process the mortar is pressed round each stone; and the *smoother* it is made, the *stronger* it will be, and the better will it resist disintegration.

It has generally been the practice to have the corners formed of cut stone; but in a two story building erected last season within a few miles of us, this expense* was avoided by *rounding* the corners, and using cobble stone. The cut stone is not the only saving by this plan, however, much of the mason's time is consumed in laying such corner stones.

On the first mentioned building, the workmen were employed by the day. Four walls, amounting to one hundred and forty-six feet in length, were commonly raised eighteen inches every day by three masons. This is a little short of ninety-nine cubic feet of wall, or six perches to each workman. Sometimes in damp weather they had to stop a while for the mortar to set.

The building erected last season was contracted for by the perch at thirty-seven and a half cents; and half of this sum, additional, was allowed for the tender. The walls, however, were grouted—that is, all the interstices between the stones were filled with liquid mortar; and this substance must have *more time* to set. For this reason not more than three courses a day can be laid in dry weather; and not any when it is showery.

It requires from ten to twelve bushels of sand to a perch besides the lime when made into mortar; and cobble stones lie in a heap when thrown from the wagon about as compactly as they do in the wall.

If cobble stone buildings are as cheap as wood, as one of those proprietors believes, they will be much cheaper in the long run; and this will be evident when we consider the frequent paintings which are necessary to keep a frame house in decent repair.

P. S. Since writing the above, I have received two communications from persons who have had cobble stone houses erected. One says, "the thickness of the wall is measured from the outside of the stones. Pieces of timber, four by six inches and two feet long, are used for setting the lines. These are laid in the course just finished, and the line is drawn through saw-cuts just sixteen inches apart."

The other says, "the cost of cobble is about one-sixth less than brick; and probably one-quarter or one-third less than wood,—on the supposition that the stones may be had within a mile, and sand within two and a half miles." It must be evident, however, that the expenses of cobble, brick, wood and stone, must differ considerably in different places, according to the prices of those materials and the distances they have to be carried. D. T.

Greatfield, Cayuga co. 1 *mo.* 21, 1841.

* Estimated at one hundred and fifty dollars, but then the hauling would have formed no inconsiderable item.

On the Culture of Indian Corn.

MESSRS. GAYLORD & TUCKER—I have sometimes thought I would contribute something to your columns, (if you deem it worthy,) the result of my operations, but having kept no regular account, I cannot be very minute. In the cultivation of Indian corn, my practice is, deep plowing, late in the fall, of sward ground; and during the winter give it a dressing of lime of from 50 to 75 bushels per acre; in the spring apply the harrow as early as possible, and continue it occasionally until planting, which is the last of April or 1st of May. I use a variety of large white dented corn. During the season of cultivation, I am careful never to plow through the sod. I use the plow and cultivator alternately; am careful to leave but three stalks in a hill. My crop varies from 100 to 125 bushels of ears per acre.

After using the cultivator the last time, I sow my corn field with the common flat turnep and always have a good crop.

Value of the Sugar Beet.

Last year I planted a few rods less than half an acre of sugar beet, and had 327 bushels of fine roots, weighing about 9 tons, and their effect on my cows is truly gratifying. I have three cows that had calves last February, and that will again calve next March, to which I give 2 bushels of beets a day with hay and corn stalks, that now yield us an abundant supply of milk and butter, without any appearance of drying, and doubtless will continue until we stop the beets, and are in fine order. I took an old cow, late in the season, very thin in flesh, which I fed almost entirely on beets, with a little meal toward the last, and made a fine beef of her.

I gave a full supply of beets to my fatting hogs, and never slaughtered better, and with so little grain. I am now feeding them to my store hogs; they are in fine condition and grow fast. In all cases I feed them raw. Notwithstanding what was said against their use in the Cultivator, I am decidedly of the opinion, that there is no article now in use that will produce an equal amount of feed from the acre. I have never used them alone in fattening animals, but this I know, I have never used so little grain in fattening my animals, and never had better.

I cultivate 18 acres of land, and will try the coming season to give you some account of my operations a little more in detail.

One word to farmers in general. Do no more than you can do well. Farms in general are too large; more cattle are kept than are kept well. I am clearly convinced that it is much better to raise 100 bushels of corn from an acre than fifty. It is better to have a cow give 12 quarts of milk a day, and continue the year through, than to give 5 quarts a day for 7 months.

D. C. OSBORN.

Westfield, N. J. Jan. 23, 1841.

Farming on the Prairies.

MESSRS. GAYLORD & TUCKER—The following hints on agriculture were received from a farmer of experience, and are communicated with the hope that they may be useful to the farmers of Illinois, many of whom are subscribers to your valuable work.

In plowing *new prairie*, the sod or sward is usually turned to the depth of from four to six inches, and from twelve to twenty inches wide. It is important that the sod be laid as level as possible in the preceding furrow. The plow beam is usually attached to an axle supported by two wheels; sometimes the fore wheels of a wagon are used. One wheel should be so adjusted as to run on the middle of the sod last turned, and should be of cast iron or otherwise made heavy, so as to press the sod firmly down. The circumference may be set with sharp irons in the form of an axe blade, which will cut holes about four inches long, three inches deep, and about two feet apart, for the reception of the seed corn; this will save one-half the labor of planting; and the corn coming up in the middle of the sod, will not be so likely to suffer from the grass and weeds usually springing from the edges of the sod. My friend suggests that many advantages would be derived by leveling the surface of new land with a heavy roller. He says that by plowing to the depth of six or eight inches and rolling before or immediately after planting, the ground would be fit for the plow as soon as the corn comes up, and that thereby a large crop may be raised the first season. That the grain would immediately strike root into the soil beneath the sod, and that the noxious gasses evolved by the decaying vegetable matter would be confined in the ground or nourish the crop, instead of producing disease in the vicinity. The opinion is prevalent in Illinois that large tracts of new broke prairie are productive sources of disease to the settlers near them, especially if the summer be rainy and warm.

Should these hints enable any of our farmers to save a few day's labor in planting—to raise a good crop of grain, and at the same time preserve the health of himself and family, he will please communicate the result of his experience to the editor of the Cultivator.

Carthage, Illinois, Jan. 15, 1841. C.

State Aid to Agriculture.

MESSRS. EDITORS—I have read with pleasure the communications in the last number of the Cultivator, on the subject of "Legislative Aid to Agriculture," and most cordially approve of the objects therein suggested. Permit me through the columns of your invaluable journal, to second the efforts of those gentlemen by recommending prompt, simultaneous, and energetic action by every Agricultural Society in our State. Let memorials to the Legislature be circulated, praying for the organization of a State Board of Agriculture, and particularly for appropriations, to be used in awarding premiums at the annual Fairs of the County Societies. One or two hundred dollars to each Society will be adequate to their wants; and after the proper spirit is aroused, I question whether any aid from the State will be needed. But at present in the infant state of these associations, that spirit is lacking, and the duty of a few individuals in obtaining subscriptions to constitute a premium fund is very onerous. Very many farmers refuse to enrol themselves as members, because they have nothing to exhibit at the Fairs which stands a chance of obtaining a premium, as a dollar they think is too much for the "sight." Now the only way to bring this class into the fold, and it is a tremendous majority, is to let them see the "pig" for nothing. But the question very naturally arises, who is to pay the *piper?* Why at present, comparatively a very few public spirited individuals are obliged to do it. This is a left handed sort of monopoly, or *aristocratic privilege*, which does not exactly comport with republican institutions, and had better end forthwith. But let the State do it, and it will at once act upon that great and fundamental principle of good government, under any form of "conferring the greatest good on the greatest number." It will be no *gift*, but a *quid pro quo*, and the best bargain the State ever made, for we solemnly promise to return what we receive to her ample lap with quadruple interest.

But a deaf ear has been turned to our former supplications, and I am now clear for demanding it as a *right*, and no longer obsequiously asking it as a *favor*. We uniformly receive a polite, passing bow, from all our chief magistrates in their messages, and a frigid report ekes from a committee of lawyers at the tail of each session, and there is the "be all and end all." The farmer is indeed the "patient ox," who has to bear the burdens of taxation, and the evils of bad legislation more than any other class; but let public men beware, for his patience may become exhausted, and that he carries *heels* which will kick strongly when treated ungratefully. Now, let every farmer through the length and breadth of the State, put a *mark* on the members of the present Legislature who give *negative* votes to the prayers of our petitions, and then *nous verrons*. I have no notion, Messrs. Editors, of using soft soap and sugar candy in this matter any longer. Let us act boldly, with unanimity, and with becoming spirit, and our wishes will be complied with, and not without. A gentle rap at the door is useless. Why the deafness ascribed to the adder is nothing to that of your *officials* after their election. Thunder is the only thing that will make them hear; this is fact, this is history, and *we* the farmers, have got to use it, or my word for it our "barrels will not be down till next week."

I would respectfully recommend the appointment of two or more individuals, residents of Albany, by the State Society, whose duty it shall be to urge our applications from day to day to the members of the Legislature; and furthermore let a strong memorial be presented, which will doubtless have much weight, coming from the parent Society.

I will conclude by saying that energetic measures will be adopted in this County, in furtherance of the above object, and our representatives will give it a cordial and strong support. Your friend, L. A. M.

On the Culture of Wheat.

MESSRS. EDITORS—Believing that I have received a good deal of benefit from reading the experiments of others, I am willing to give the benefit of what little experience I have had in farming, as a small requital to the contributors and readers of your paper, for what good I have obtained from it, and if by so doing I can add one new and *useful* idea to my brother farmers, I shall feel myself amply paid for my trouble.

I set out by avowing my entire belief that *the farmer makes his wheat freeze out, if it ever does so;* the way he does it, is, by too early sowing, for when a wheat plant comes up so early in the fall as to have a large top it invariably has one large and long root, commonly called "a tap root," that strikes deep into the ground, besides a number of small roots that reach about in the top of the ground in search of food. When the first frost comes, it raises up a thin part of the ground and from the large root being deep and the small ones much extended in the surface, the little firm ground cannot slip up the top of the grain, but must either pull up or break the large or tap root, and if that root is broken (as I am satisfied is almost always the case,) the plant must die; but if the wheat is sown later, and is only in *"the red"* in the fall, when the first frost comes the ground will slip up the grain, without disturbing the "tap root," and when the deeper frost comes, it will bring the root all up, and in the spring when the ground settles, all goes down together, and the plant *being whole*, proceeds to grow, and none is frozen out. For the above reasons I have withheld sowing my wheat till in October, and have not had a rod of frozen out wheat in fifteen years.

Hamburgh, New Jersey, Jan. 30, 1841. L.

National Agricultural Society and School.

MESSRS. EDITORS—I notice in your last number for 1840, a production from the pen of that distinguished farmer JAMES M. GARNETT, headed "Importance of a National Agricultural Society." I have long been in the habit of giving special attention to every thing published over the signature of that philanthropic and talented Virginian, of more than 50 years of scientific experience; and it would afford me great pleasure as well as instruction, were it in my power to visit him and become acquainted with the man and his practices; for if he farms as well as he writes—if he is as good a farmer at home as he is in the agricultural papers, much might be derived from a visit to his residence. But, in so much as my own little matters at home preclude the idea of such a visit, permit me to talk a little with him through a medium worthy of the man I address.

With spirit and force, Mr. GARNETT urges the formation of a National Agricultural Society. I agree with him that we ought and must have such a Society. I have no doubt that such an establishment would confer many benefits upon our agriculture, more than any man could now foresee, while it would tend rapidly to enhance the respectability of that branch of business; and therefore I do not write to *oppose* any thing Mr. G. has said, but to *suggest* for his consideration, as well as of your other readers, the idea of *connecting a National Agricultural School, with a National Agricultural Society.* It is well known that half a million of dollars is now in the treasury of the United States, donated by Mr. Smythson to this nation for the purpose of the mental improvement of our people. Now this fund cannot be applied in any way to do *our whole population* so much and such perpetual good, as by the establishment of a National Agricultural School. This point seems to be agreed upon by all your correspondents who have touched the subject; and if a National Society would also be useful, and therefore should be formed, what impropriety would there be in connecting the two together? Might they not mutually stimulate, improve and nourish each other? Or if the two institutions should be separate and independent of each other, would not each be more feeble, less efficient and less respectable? Under present circumstances, who have we to carry out the establishment of such a School? It must be apparent to every one, that if the whole, in its details and practice, is to depend upon the energies and devotion of our heated politicians, we need not expect it will soon go into operation, or that it will be well managed when in operation. I have some little experience in the inefficiency of politicians, when trusted with agricultural matters. Every little party excitement will engross more of their solicitude and attention, than the most important agricultural measure. Indeed you cannot get the politicians of this age to "condescend" to a vigilant attention to such matters. How then are we to succeed in the establishment of an Agricultural School? I answer not by the agency of politicians alone. Nor do I profess to know how it could best be done, and therefore write to induce others to think and express their views. How would it do for Congress to place the establishment and management of the School in the hands of a National Agricultural Society, to be made up annually, of delegates from all the States? Now if every State had a State Agricultural Society, it would be easy for each Society to send the delegates to the National Society, and if Congress were to charter a School thus under the control of the State Societies, this act itself would no doubt cause the people in every State to organize in order to be represented, and thus agriculture would at once assume a stand all over the Union, while a great National Society and National School would be formed on a permanent basis. Thus the agricultural strength would be organized, so as to act in unison. This is the great desideratum. Let all our energies be concentrated, and we can do any thing in the power of man; but divided and scattered as we are, we spend our forces, as it were drop by drop, whereas *union would make us mightier than a torrent.*

If this view be correct, that the surest guaranty for a speedy and judicious establishment of a National School, is the formation of a National Society, let us see on the other hand how a National Society will thrive without a School; and here too, I wish not to be understood as speaking with full confidence that I am correct; let all think for themselves, and express freely what they think. How will the National Society continue to keep up incentives strong enough to insure always full meetings? What important business can be always before the Society, to induce talented men to assemble from all parts of the Union? Can it be supposed that an Agricultural Fair of a national character will continue to hold out inducements sufficient to cause talented business men to ride a thousand miles on their own expenses, to the neglect of their own private business? While the thing is new, many a zealous friend to the cause would readily do it; but when we have had three or four annual meetings, will not every one be less inclined to make a sacrifice of his private interest than at first? We shall all feel that we have put the ball in motion, and that it will move on if *we* do stop to think of our own affairs. Well, but Mr. Garnett intimates that the members of Congress might serve as delegates to the Society. I think, as I have before said, that politicians will not do to manage such business. How then shall we contrive to keep up our Society? To me, there seems to be but one plan, that of placing the School under the control of the Society. Then we may suppose that no man would ever feel that he was going upon an idle errand, when delegated to the National Society. All the inducements of the business of a National Society, a National Fair and a National School, when combined, would I think, be enough to make any man feel the importance of his mission. I should esteem it a greater honor to be elected by a State Society to represent my State in a National Society of this kind, than to be elected by my district to the House of Representatives in Congress. Indeed could a man do more for his country than to fill with ability an office upon which so much of his country's prosperity would depend? But it may be asked, can Congress be induced to place the School under a National Society? I reply, if the people demand it, it will be done; and it is perhaps nearly if not quite as easy to stir them up to that, as it would be to induce them to form a National Society independent of a School. If we could engage the Hon. DANIEL WEBSTER, HENRY CLAY and a few others who feel the interest in agriculture that they do, to urge this kind of a National Establishment, upon the floor of Congress, the people would soon respond, that it must be done. And cannot half a dozen such men as Mr. Garnett, induce a few prominent members of Congress to take an energetic stand in favor of the measure? Can we not "log roll it," or act the part of lobby members, till we gain strength enough to give the position a respectable notice in Congress? And if we succeed thus far, the point is gained, for a majority will respond affirmatively at the ballot box. Respectfully,

F. H. GORDON.

Clinton College, Tenn., Jan. 2, 1841.

Lincolnshire and Cotswold Sheep.

MESSRS. GAYLORD & TUCKER—In the last volume of the Cultivator, page 176, Mr. SOTHAM has commented pretty freely on an article of mine published in the same volume, page 93, in regard to my Lincolnshire sheep. He remarks—"I have perused with much pleasure a communication from Mr. Clift, on Lincolns, though I cannot say I agree with him, as being the best sheep for the country, or can I believe that length, height, breadth, or girth, denotes a good animal." Now I had nowhere said "that length, breadth, or girth, denoted a good animal," or that their measure in any way whatever, was any "criterion to goodness." In relation to my buck, I only gave the simple fact as it was; neither did it strike me as being at all "novel," to give the measure of an animal; and so far from asserting or believing, that this was an uncommon measure for a sheep, I stated that my Lincolns were not over large, but carried great weight in their compass of carcass. As to Mr. Sotham's not "agreeing them to be the best sheep for the country," I have not the least concern on that point, but will leave this to all those who have proved them, to judge, and time more fully to demonstrate, and shall be ready at all times to compare them with any other breed that may be produced. While on this point, it will not, I trust, be thought out of place to state, that during the last three years, I have sold to the farmers and butchers over 200 head of sheep of the cross and full blood Lincolns, and at prices generally varying, to the butcher from ten to thirty dollars per head, and to the farmer, from ten to fifty and in several instances at one hundred dollars per head; and I state it as a matter of great pride and satisfaction, that not in one instance that has come to my knowledge, have they disappointed all that was expected from them. For the information of Mr. S., I will state, that I have years ago turned lambs to the butcher, short of one year by two or three months, that weighed 18 and 20 lbs. per quarter; but this can be by no means made a general practice with us; so neither does it, or the fact to which Mr. Sotham has referred, disprove that it may not be considered early maturity to have our wethers fit for the stall at two, and at farthest, three years old. Animals that give us the best return, according to the expense of their keep in any given time, must always be the most profitable to the farmer, and that the Lincolns have done this for me, (as sheep,) I again assert, with the fullest confidence, over all others I have yet tried.

The best part of Mr. Sotham's letter, *for me*, remains to be noticed; after giving a very fine, and I have no doubt, just description of one of his bucks, he observes "that if Mr. Clift approves of his good qualities, he will cheerfully sell him to me at a reasonable profit." Now Messrs. Editors, Sam Patch, or somebody else, has quaintly observed "that some things can be done as well as some others," and it so happens that I am sometimes looking out to see what is going on in the world, as well as some others; so I had the curiosity to attend at the late Fair of the American Institute, held in New-York, and I took along with me several of my Lincolnshire sheep to show and enter for the premiums. Here much to my surprise and satisfaction, I found Mr. Sotham with all of his late imported stock, also for show and entered for the premium. Being both of us lovers of fine stock, we were not long in making acquaintance. Here then was American bred sheep, and Lincolns too, obliged to contend against some of the best sheep that England could produce. The contest between Mr. Sotham's sheep and mine, lay, for the best ewe and lamb, a single pair each, and for the best buck, with this difference, or odds against me, that Mr. Sotham showed 19 fine bucks to my one, as I had but a single buck on the ground. I trust it will not be thought arrogant for me to say, that to me was awarded the first premium for the best ewe and lamb a silver cup for each. I can moreover assure you, Messrs. Editors, that Mr. Sotham's ewe was no fool of a sheep, either, for I liked her so well that I purchased her at a strong price, and she is now in my possession. I have noticed by the Dec. number of the Cultivator, that Mr. Sotham has done me the favor to acknowledge my purchase of him, of one of those bucks, and the loan of another buck, as represented in the Cultivator, for which favor I hereby tender him my thanks, and for his information will state that they have done fine, and show the right sort of constitution. With all due deference to the opinion of Mr. Sotham and others who sold this lot of bucks, I do not fear to hazard the opinion that they showed much stronger marks of Lincoln blood, than of any other breed, particularly in the appearance of their coats, great weight of fleeces, quality and firm constitution which they indicated; and quite certain I am, that the buck I purchased of Mr. Sotham, is altogether of that strain of blood, and Mr. Sotham will bear me witness that I selected him more particularly with that view, as I hope by this means, to keep a part of my flock pure of this blood, and give the Lincolns a fair chance to maintain their ascendancy. I think that these bucks will give a little more size in the general, to my flock, without any sacrifice of their previous fine qualities, which in no case I should be willing to hazard for the sake of obtaining greater size. I have between 80 and 90 choice selected ewes, now in lamb by these bucks, and I hope and intend, by my attention to my sheep, and adhering strictly to the true principles of breeding, to prove them still worthy of the attention of my fellow farmers.

I have written with the best feelings towards Mr. Sotham, and only wish to remove any wrong impressions that his article may have given your readers, in respect to my Lincoln sheep. It will be but sheer justice for me to acknowledge that I think Messrs. Sotham & Corning entitled to much credit and liberal patronage, for their late importation of so much fine stock. I am free to acknowledge, taking their sheep as a whole, I never saw finer, and in several individuals of them, it would, I think, be hard to find their equal in any country. Of his other stock, I profess not to be as good a judge, but I should say, I saw some most beautiful Hereford cattle, very silky in their coats, and fine in their flesh. I have no doubt but they will prove a good cross upon our best native cattle, as well as upon the heavier fleshed Durhams, and other improved breeds among us. Their cow Matchless has been the most perfectly represented in the Cultivator, of any animal I have seen, as like its original in all respects.

You will recollect that in my last communication to you, I gave the weight, price, &c. of some of my wethers for the last 2 years. The present winter, my primest wethers went to the market about the first of December, 24 in number—6 of these sheep were 3 years old, and gave a total dead weight of 879 lbs., or 146½ lbs. per carcass, equal to 36½ lbs. per quarter, and I am informed that one of these sheep gave 36 lbs. of fat in caul or rough. Pretty good weight this, for not over large sheep. With due regard, yours, L. D. CLIFT.

Somers, N. Y. Jan. 26, 1841.

Management of Salt Marshes.

MESSRS. EDITORS—It was my intention to have replied sooner to the inquiries of Mr. FAIRBANKS of Nova Scotia, published in the November number of the Cultivator, page 178, relative to the treatment of salt marshes; but various engagements, and I might perhaps add some negligence, have prevented until the present time. I have had some experience in improving tide meadows, and have expended much time and money in arriving at a successful system of treatment upon this kind of soil. The following directions may perhaps be useful to your correspondent, and others similarly situated. 1st. That the marsh should be secured from the tide by a permanent bank. 2d. That a sluice or sluices of sufficient capacity be laid, to discharge the rain water, and back waters, which may proceed from adjacent uplands; so that at no time the water courses and ditches will be filled to overflowing. The sluices should be laid deep enough to draw the water through them from the lowest part of the marsh; great care should be taken to have the doors made tight so as to exclude all the tide water possible. The water courses and drains should intersect each other at right angles, and no lot of marsh should contain more than ten acres; if any rain water should lay upon the middle of these lots, it will be necessary to cut small drains to let it pass off freely; these might be covered where the materials are at hand. The mud and earth which come out of water courses and ditches, should be removed into the lowest part of the marsh; by a neglect of this, the rain water will be confined too long upon the surface, and the most luxuriant growth of timothy or clover may in a short time be converted into a nursery of rushes, upon the same principle that wheat so frequently turns to cheat.

The best time to sow down in grass, is when the tide is first shut off, and when the mud is soft; a growth of coarse grass will spring up sufficient to protect the fine grass in its tender state; this crop should be mown off and not suffered to lodge upon the marsh. Timothy* and herds grass require about one bushel to sow four acres. The former will flourish where the water can

* What we call timothy in New Jersey, is called *herds grass* in the New England States, and what we term herds grass, is known by *Red Top* there. To avoid mistake in my meaning above, *timothy* resembles the tail of a rat.

be kept two and a half or three feet from the surface; where it approaches nearer than this, in the ditches, the latter will succeed best; in order to avoid having it sown in rows, it should be sown a second time across the first sowing. It is not advisable to mow longer than three years in succession; to mow and pasture alternately is the better plan. If the high marsh becomes bound and unproductive, plowing will be necessary; and after raising two or three crops of rye, Indian corn, or broom corn, without the application of any manure, the soil will be quite renovated, and when sown down in grass will be much more productive. When the earthy deposit is several feet in depth, it will not soon become exhausted; when it is not desirable to plow, lime may be used with success. Low marsh, or turf, or as we term it here, "*horse dung*" mud, should not be plowed; when it becomes unproductive, a covering of clay or loam to the depth of two or three inches, will be found the cheapest application. I have had no experience with sea manure.

THOMAS F. LAMBSON.

Salem, N. J. Jan. 20, 1841.

To Western Emigrants—No. 4.

Messrs. Editors—By sundry assurances from unknown friends, that my articles have answered some of the purposes for which they were written, I am encouraged to continue. Even if they did no other good than to be the moving cause of bringing "two Durham cows" from my native state of Connecticut, to feed upon our boundless pastures, I should be satisfied. I hope Mr. Allen will give the required information, as to cost of freight, &c. And here I will take the liberty of saying to all persons desiring information connected with the great cause of improvement in agriculture, upon any branch within the extensive knowledge of A. B. Allen, or his brother R. L. Allen, of Buffalo, that they have but to ask, and they will receive. If they wish similar information from Chicago, address John S. Wright, Esq. Editor of the "Union Agriculturist."

No emigrant need fear any difficulty in bringing along cattle and hogs. Several of the masters of steamboats on the Lakes, seem to take great interest in the shipment of choice stock to the West. I have had three lots of pigs, shipped from Buffalo to Chicago during the last summer, in the sole care of the master of the boats, and from the appearance of the pigs on arrival, they must have been treated like cabin passengers. In fact, none but a brute could maltreat a Berkshire pig.

In the shipment of furniture, emigrants need advice. Great care should be taken in packing everything in the most compact manner, in barrels and boxes, strongly hooped and nailed; and very plainly marked with full directions. The freight upon the canal is charged by the pound. Upon the Lake, and upon storage in ware-houses, it is charged by the *barrel bulk*. The best way is to contract in New-York or Albany, for the whole charge of transportation clear through, and pay it, and take a receipt, specifying the contract completely. If you have a family, you will have enough to look after, without watching your freight all the journey. Many articles are lost, through the carlessness of the owners. Articles are sold every year in Chicago, "for freight and charges," that never had any mark upon them of owner's name or destination. You cannot be too careful. Be economical, prudent and good natured upon your journey. Avoid haste and hasty words, although often provoked, and be determined to have a pleasant journey, and my word for it, you will have. And at whatever sacrifice, be sure to settle all your business before you start. For I have found out that "money to come from the East," is a very snail of a traveler; it but rarely overtakes the emigrant; and as for "going back after money," you can earn two new dollars here while you can hunt up one old one there.

If it be possible, always fix upon some definite spot for your location before you start—and when you arrive in a new settlement, *beware of sharks*. Be careful to settle in a healthy spot, although the soil should be less rich. Nothing disheartens the new settler so much as a season of sickness in the first year; and it is often brought on by great imprudence.

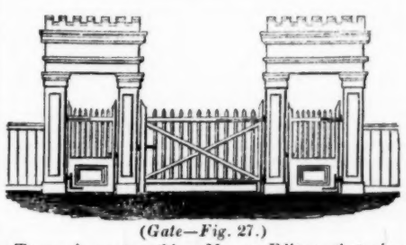
One prevailing fault among new settlers, is undertaking too much the first years. I have known many to completely prostrate themselves in a vain endeavor to fence and cultivate forty acres with strength only sufficient for ten, and after months of toil, finally compelled to witness the destruction of the whole crop, in consequence of their inability to "finish the fence." Not only the loss of crop, but a severe fit of sickness, brought on by over-exertion and exposure. For probably, while toiling at the field, the finishing of the house has been put off, and at last when placed in a situation to require a comfortable shelter from storms and winds, there is nothing of the kind. I have personally known much suffering, and sometimes death, to arise from such circumstances. How much better to make a small beginning. To be sure and make the cabin as comfortable as possible, for at the best, it is to a family that have never been used to the like, but a temporary convenience, generally occupied more through necessity than choice. Not but that a *log house* can be made most completely comfortably, and I have often seen those of a very rough exterior, which showed the highest degree of neatness within. But there is such an anxiety among many emigrants to get a large farm, that the dwelling is neglected. This is all wrong, it is much better to have a "*little* land well tilled," and a house, if not "well filled" inside, at least have all the cracks in the outside well filled, if you expect to keep the wife, 'well willed." Many an ague fit is brought upon the new settler by the unusual exposure to which they subject themselves in an unfinished log cabin, with all the cracks open, perhaps without door or window, and but half a chimney, and sometimes without floor or fire-place.

Such a change from all former usage cannot be submitted to with impunity, although in the summer time, and though it be merely for that indefinite period, "'till I get over my hurry." The fact is that an industrious man upon a new place, where everything is to be created by the work of his own hands before it can be called *a farm*, is never over his hurry. And I am sure that I shall have all the female part of my emigrating friends upon my side, when I insist that it should always be the first thing to do, as I am sure it is the first *duty* of the emigrant, to make the dwelling house as comfortable as the circumstances will possibly admit. If a man will expose his own health, he is bound by the strongest ties to protect that of his wife and children at all times, and doubly so, when he has brought them away from the thousand comforts that they have been reared to, "to begin a new home in the wilderness." And although the new settler's log cabin is necessarily a rough uncouth looking dwelling, it can with a very small amount of labor, be made tight, warm, comfortable and pleasant. How many of my readers now dwelling in their handsome mansion houses, will, as they peruse this, look back to the positive happy days that they enjoyed in a log cabin.

That many of their descendants who are disposed to partake of the bounties that nature has provided for the industrious man in the Great West, will yet enjoy life in the same kind of humble habitation, is the sincere wish of their humble log cabin friend. SOLON ROBINSON.

Lake C. H. Ia. Jan. 28, 1841.

Ornamental Gates.



(*Gate—Fig.* 27.)

There is no one thing, Messrs. Editors, that gives more character to a farm than a neat and handsome gate at the entrance; and this subject has been entirely overlooked by our agricultural papers, as well as other publications. This fact I was not aware of until about two years ago, when I had occasion to erect one at the head of the avenue, leading from the road to my house. I examined the Encyclopedia's, and every book connected with agriculture or rural architecture, and not a syllable could I find on the subject. As a dernier resort, I was compelled to tax my imagination for a plan or form of a gate which would combine neatness and strength, and not be too expensive.

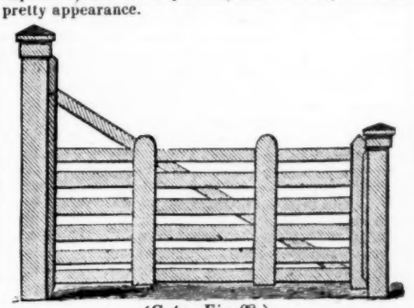
The one represented above was the result, and I had one constructed with some modifications, leaving off the entablature and making the side gates stationary.

I do not offer it as being the *most ornamental* or *least expensive*, but one that might be adopted until a better one is offered; at any rate it may awaken attention to the subject, and *draw* from your correspondents something much superior.

The two center or main posts are of chestnut, 8 inches square and 14 feet long, set 4 feet into the ground, and the earth well packed around them. The two outside ones are 11 feet in length—8 inches square, and also set 4 feet in the ground, and all encased with 1¼ inch plank. The gate is 10½ feet in length and 5 feet high. The heel is of white oak 5 9-12 feet long—3½ inches wide, 2¾ inches thick—the top and bottom rails as well as the cross pieces or braces are 4 inches wide and 1¾ inches thick—the upright pieces or balusters are 1¼ inches square, and morticed through bottom bars and cross pieces, every one forming a brace.

The gate is 10½ feet long, and it is astonishing how much weight it will resist at the head. After it was hung, a man whose weight would not vary much from 180 lbs. hung his whole weight on the head, and we could not perceive that it settled in the least.

Every farmer should have a set of carpenter's tools and a room to work in, where many implements may be made or repaired in stormy days, when field work would be impracticable. By practice we become familiar with the use of tools, and a little ingenuity will enable almost every person to make a gate of some description or other, and I would offer the following (fig. 28.) which was handed me by a friend that has one in use, as being quite simple in construction, not very expensive, and when painted, makes a very neat and pretty appearance.



(*Gate—Fig.* 28.)

It is 10 feet long—4½ feet high—the heel or long back piece should be of oak, 3 inches square and 9 feet long—the head may be of pine 2 by 3 inches. The lower bar should be 7 inches at the heel, tapering to 5 inches at the head—the next 6 inches and tapering to 4 inches—the two center pieces should be 4 inches and tapering to 3 at the head—the two upper ones may be 3 inches at the heel and taper to 2½ at the head. The brace should be firmly secured at the top of the heel piece and bottom of the head, should be 4 inches wide, and a wrought nail, well clenched, through the rails. The posts, if not cased, should be 8 inches square, and capped with pine plank.

It is an old adage that "a man is known by the company he keeps." So the provident farmer is known by his gates, fences and out-buildings; to find them in good order and repair is evidence of thrift, and gives character and a favorable opinion of the proprietor.

"Show me," said a valued friend, "good fences, gates and out-buildings—fields free from brush, briars and weeds, and I will show you a good farmer."

To illustrate this, I will relate a circumstance that occurred while myself and son were riding through the east part of Saratoga about one year ago. It was in a section of the country new to both of us; of course the inhabitants were all strangers. After passing several farms which had the appearance of being pretty well managed, and *many* which appeared the very reverse, we came to one which attracted my attention, and I said to my son, "This man *takes* and *reads* an agricultural paper." "Why do you think so?" said he. I pointed to his fences and gates for an answer, and as we approached his dwelling other evidences were so apparent that I proposed to make him a call. Unfortunately for us he was absent, but we found one of his men who was kind enough to show us the stock and improvements, all of which strongly confirmed my first impression.

In his yard we found a fine Durham bull, for the improvement of his cattle, and his pigs were a cross of the Mocho and Berkshire breed. His piggery was on a new plan intended for the double purpose of fattening his swine and cattle. It was in the basement of his grain barn, near a cellar in which he stored his roots. The basement also contained his horse power, with which he thrashed his grain, and ground his apples and vegetables for his stock. Near to this he had two cauldrons set in arches, in a house where the food was cooked for his hogs.

His pens were about 4 feet wide and 10 feet long. In each pen from two to four hogs are fattened in the fall, and when slaughtered, their places were supplied by bullocks, each pen forming a very comfortable stall for one animal. In addition to the usual fixtures for swine, he had racks erected for hay, and the troughs answered for mangers in which grain or roots could be fed to cattle.

Every step we took only increased our regret at the absence of the proprietor, from whom we were confident we could receive much information.

We were informed, by his man, that he was attending an auction about four miles distant on our road home. I was determined, if possible, to ascertain whether I was correct in my opinion or not. After considerable search I found him, and did not hesitate to approach and enter into conversation with him at once.

And here I would remark, that I have never yet met with a farmer *that had imbibed a spirit for improvement*, that did not receive me with cheerfulness and a hearty welcome. After some conversation on "matters and things" appertaining to our profession, I put the following question to him: "What agricultural paper do you take?" "The Cultivator and Genesee Farmer." was the reply.

To show the importance of gates in another point of view, besides convenience, I will relate another circumstance that occurred last fall. I was in search of a person in an adjoining town, and was directed to take a particular road and turn into the first "swing gate," which I found without difficulty, and could not but remark that it was the only gate I saw in that section. CALEB N. BEMENT.

Three Hills, Feb. 1840.

Improved Yorkshire Swine.

Editors of the Cultivator—Will you so far oblige us as to give us space in your exceedingly valuable publication to inform your countrymen, (several of whom have gratified us by most interesting and intelligent letters,) that we expect to have a tolerable quantity of our improved Yorkshire swine ready for shipment about the middle of May. The price of a single pig will be 15 dollars; for a pair, $25; at which price they will be properly caged and put free on board a steamer at Hamilton, at the head of Lake Ontario. Prepayment to be made in bills payable in Canada, or at least in the State of New-York. A description of the swine appeared in one of your previous numbers, and we have nothing to add to it. We have orders to send several pairs into the United States the ensuing spring, and we have no doubt of their making themselves favorably known to the enterprising breeders of that country. It may however, be important to state, that as a cross with the far famed "Alligators," they have proved themselves highly valuable. Two years ago we had a lot of as shabby sows presented to the notice of our boars, as could possibly be met with, such indeed as no feeding would bring to the weight of 200 pounds; and we have the best evidence that the produce on being slaughtered this winter, being about 18 months old, have weighed from 280 lbs. to 350 lbs. This very great improvement has induced many of our sapient friends to believe that their hogs are now as good as they can be made, and they are consequently breeding from half bred boars, by which proceeding every man of intelligence must know that they will shortly have another swarm of "Alligators." JOHN & E. A. HARLAND.

Guelph, U. C. Jan. 23, 1841

A Visit to Mr. Allen's Piggery.

MESSRS. EDITORS—Being at Buffalo a short time since, and having heard much of the celebrated Berkshire and China stock of swine, and being an admirer of fine domestic animals withal, I determined to make a visit to Mr. ALLEN and ascertain whether his stock realized the description I had often had of them.

The farm of Mr. A. is charmingly located on the immediate bank of the Niagara river, two miles below Black Rock and five from Buffalo. The ride is a pleasant one. You are scarcely out of the city on a broad and noble avenue, before you are within Black Rock, which stretches along the river for upwards of a mile, on a broad and level street, with several mills attached to its immense water power, created by the great State pier which walls in a portion of the Niagara river, and here forms the head of the Erie Canal, and supplies it with water for half its length towards Albany.

One can hardly imagine a pleasanter location in the summer season, than is presented from the house of Mr. A., having a fine view of Lake Erie some five miles distant; the town of Black Rock and the steeples of Buffalo, with the ascending highlands stretching far away beyond them—the broad and clear Niagara, here two miles wide, checkered with beautiful grassy islands, and the green cultivated shores of Canada opposite. The canal passess immediately in front of the house between the main road and the river, giving every desirable facility of access and transportation east or west, by canal boats every hour in the day.

Mr. A. B. ALLEN was not at home, having gone to Ohio to pass the winter; but I found his brother residing there for the present, who kindly showed me their extensive establishment, and gave me much valuable information regarding their stock, and other matters appertaining to the domestic and improved animals of our country. The piggery, including a new erection recently enclosed, is now 100 feet long, by about 30 wide, and two stories high. It is divided off by a spacious alleyway in its whole length through the center in two long ranges of rooms. These are subdivided into separate pens from 8 to 12 feet square, as circumstances require, and fitted up in the most approved style of convenience. In these were the breeding sows, some with young litters of pigs, others two or three together, and some single, as their different conditions and circumstances required. In one end was a steaming apparatus, with huge tanks or vats for steaming the food, supplied with water by a large cistern under the building. Overhead were stored quantities of straw for bedding, corn, oats, Indian meal, shorts, &c. &c.; in a word, all the varieties of food with which the swine are fed. Placed at proper distances through the building were glass windows which pushed back and forward as ventilation was required, but always admitting an excellent light through the day into each apartment. In the rear of each enclosure was a small door for the passage of the animals out into the open air in good weather, and for exercise, a thing almost daily practiced. In short, every convenience which thorough and approved breeding required, was here furnished in a cheap and economical manner. Surrounding the piggery, were three or four grass fields for the summer range of the swine, with temporary pens erected for shelter, and suitable feeding troughs in their proper places.

As you will observe that every thing for the convenience and due accommodation of the animals was in apple-pie order, I shall now attempt to describe what I saw of animated nature within. The first object that struck my eye on entering at my right, was an enormous yet beautifully proportioned Berkshire sow, with eleven young pigs at her side, about three months old. This magnificent animal (excuse the term, for I can assure you that although applied to a *hog*, it is to one so elevated by the successful application of a noble science in natural economy, that the coarse material of the animal is transformed into an almost superior nature from the common groveling brute of the name,) I learned was imported, with three other sows and a boar, (Sultan, the finest and largest animal of the kind I ever saw,) last year, from Berkshire in England, at a great expense. They were all from separate stocks in no way related, and of incomparable value to Mr. A. in enabling him to avoid the *in-and-in* breeding system which much of the finer stock of our country is subjected to, for the want of proper selections from foreign stock of the same blood. This in-and-in plan of breeding, Mr. A. has always avoided, and has spared neither pains nor expense in importations and selections from the best stock of this country, to improve and cross with his own, and make it what it now is beyond a question, the most extensive and superior swine breeding establishment in America, if not in the world; now consisting of between 30 and 40 of the finest breeding sows, 2 imported boars, and pigs of every intermediate stage and growth.

But to the detail. This fine sow would weigh as she then stood, near 500 pounds, was in a capital condition and of a perfect model. Fancy could not picture a more beautiful creature of the kind; she was gentle too, as possible, and quiet as a lap-dog. These pigs I learned, were all engaged at $10 to $50 the pair in the spring. In an adjoining pen was another fine young imported sow with 5 pigs equally good with herself, and all perfect of their kind. Adjoining them also, were the two remaining sows of the last importation, now about fifteen months old, and promising in size and appearance, to equal at the maximum, either of the others. Passing along, I observed the fine and stately sows purchased last summer of the Shaker family at Niskayuna, and of Messrs. MEIGS and MIDDLETON of Albany, all select animals of excellent form and proportions. Then again, were a fine pair of young sows from the stock of Mr. ROTCH, of Otsego, one of the most scientific, perfect, and fastidious of breeders, not excelling in size, but in beauty of proportion and fineness of limb, perhaps surpassing almost any other. Here too were Ravenhair and Picaninny, the prize animals of the flocks, bred with all the honesty and good management of JUSTICE HARWOOD, one of the principal managers, besides many others, the reserved stock from time to time bred by Mr. ALLEN himself. Many of these noble sows would weigh four to five hundred pounds in good breeding condition as I saw them. Their food was principally cooked shorts obtained from the flouring mills at Black Rock, a coarse yet substantial food, with occasional changes of corn meal, potatoes, raw and boiled, sugar beet, boiled corn and oats, as the health or appetite of the animals required, both of which were studiously observed, daily and continually by a careful manager. No animal that I saw was fat, yet all were in good condition, and of course contented and *well to do*. Scattered along throughout the pens, I observed several pigs of various ages and sizes, which the closing navigation had prevented shipping away, or which had been reserved to add to the stock of grown animals; for I found that it was the policy of Mr. A. occasionally to part with a superior, or even a favorite from a well established breeding sow or boar, in extraordinary cases, when he had others equally good at hand, or coming on; but that he made it an unfeviating rule never to sell the very best sows in his herd; and by that restriction never suffering any one to possess a better animal than himself. I fancy that if all breeders would adopt and adhere to a rule so correct as this, the standard of perfection in domestic animals would not fall so low as is often witnessed in our country.

After inspecting for several hours, and with great interest, the inmates of the piggery, I was shown in another building, each in his own distinct apartment, the two boars Sultan and Prince Regent. The former is of the latest importation, and is now two years and a half old; an enormous animal, whose weight, if in high condition, would be about 600 pounds. For so large an animal he is fine in his points, being long, rangy, high shouldered, and broad in his hams; of great constitution and vigor, in fine, a most valuable animal for the extensive pork countries of the west, where great size and hardihood are in demand. The other, Prince Regent, now about 18 months old, is the most perfect male animal of the swine family that I ever saw. His size is medium, now weighing, I should judge, about 300 pounds; his head remarkably small and pointed, his ears short and erect; his neck short and highly set; his shoulders broad and firm, body round, deep and long; hams large, well set, and tail properly elevated, with a beautiful silky black hair, and the usual white intermixture of the improved Berkshire in the finest style and fashion. His pigs have proved remarkably fine. Several of them were shown me of uncommon symmetry and excellence. The stock also of Sultan, has proved remarkably good, and those which I saw at this establishment can hardly be excelled. In short, I know not how Mr. A. can improve his present selection. He has been for several years engaged in breeding and selecting his animals. No one has taken so much pains as he has; his opportunities have been good, and thoroughly improved; his eye and judgment are correct and discreet; and he has as a matter of course, excelled when perseverance, intelligence and a high sense of integrity in his business have been called to the aid of a natural enthusiasm, and laudable public spirit. Not only personal advantage to himself, is the result of all this labor, but a vast public good, and it is no exaggeration to assert, that by the services of this individual, and other spirited breeders of domestic stock in this country, our agricultural profits will in a few years be enhanced millions in the diffusion of improved breeds of domestic animals throughout our several States.

I should not omit to state that I also saw several breeding sows of the celebrated China breed, which is yet retained in its perfection at this establishment. Although much less in size and length than the Berkshires, they are still the original of all true excellence in the family of swine, and by many are preferred for crossing the native breeds of the country, to any other. They are exceedingly scarce in the United States, and I know of no other piggery in the country that possesses them. They are beautifully spotted of about equal parts of white and black; are quiet feeders, easily kept and early matured. The *gentleman's hog*, the world over.

Having viewed the piggery in all its parts, and admired its order and good management, I accompanied Mr. A. into the house, where he showed me numerous letters and correspondence, which, to judge by their bulk, must be no trifling affair of itself. There were letters of inquiry; others containing orders; some soliciting information; others imparting it. The writers were statesmen, planters, farmers, large and small—professional men and merchants, breeders of fine stock in distant parts—in fact, from all classes of our citizens, the attention of each of whom has been turned to improvement in his domestic stock, and who intends to be on the high road to excellence in all these important subjects of domestic economy. I found that during the past year Mr. A. had sent pigs to Maine and Georgia, and to almost every intervening State on the sea-board, and to Wisconsin and Missouri at the west, and to Tennessee, Kentucky, and the intermediate States in the Ohio Valley. I confess I saw with honest pride that the highest talent of our country was not too exalted to overlook the substantial improvements so rapidly making in our agricultural stock; and when we find numerous exalted individuals of the present time, diligently devoting a part of their attention to the improvement of domestic animals as they now do, it is a gratifying indication that we are in a state of rapid progression HENRY CLAY is said to be one of the best and most extensive stock breeders in Kentucky. He last year ordered a pair of Berkshire and China pigs, each, from Mr. ALLEN, and a pair of valuable Chinas were also ordered by one of the wealthiest retired gentlemen in the vicinity of Boston. I name these things as no matter of form, but to show that gentlemen of the first talent, intelligence and wealth of the country are sedulously turning their attention now, to what a few years since was considered in America proper only for the vulgar and illiterate. And why should they not? The most extensive breeder of Short Horn cattle in England, is Earl Spencer, recently Lord Althorp, and so attached is he to remaining at home and attending to his stock, that it is said he will only go to London on matters of high state affairs, where he is often officially called, when he can do so with entire convenience to the welfare of his favorite herd of Short Horns!

The success which has attended Mr. A.'s exertions in breeding swine, have brought extraordinary demands upon his coming supply, which cannot much exceed the orders already on hand. Contrary to the common opinion, that the dissemination of these fine animals over our widely extended country, would lessen the demand, it has only tended to increase it, and from present indications, for years to come the demand will keep pace with, if not exceed the utmost efforts to supply a sufficiency of *first rate* stock to those who require them. It should be matter of honest exultation and pride that our agriculturists have so far awakened to the dignity, to the true interests of their profession, as to seek improvement where it has been so long and so heedlessly neglected.

My curiosity was somewhat excited to know by what means Mr. A. was enabled to supply orders for such a distance as he did in many cases, being more than 1,000 miles, with three or four transhipments by water, and occasionally land carriage for many miles. I learned that in all cases the purchasers give the directions of the route to follow, and when the pigs are shipped, either at Buffalo or Black Rock, by steamboat or vessel, or from the farm by canal, with proper directions, they usually reach their place of destination with despatch. Occasional misfortunes occur by accident or bad feeding, want of care, &c., in those to whose charge they are entrusted, by which a temporary disappointment is sometimes suffered by the purchaser; but time and good feeding soon restores the young emigrant to its wonted condition. There is, however, a disadvantage to the appearance of any animal, and particularly so of swine, in transporting it to a great distance, but it must be encountered by those who will have valuable stock, and the risk is abundantly made up in the possession of the animal itself. During the last fall, upwards of 150 head of improved Berkshires left Mr. A.'s piggery for Ohio alone; and 19 went in one lot to a plantation in the interior of South Carolina, without serious accident. I was told that the boar Prince Regent, before spoken of, got so stunted on his passage from England, for want of proper care and feed, that it took him several months to recover his thriftiness, and it may always measurably affect his size.

I find, gentlemen, that I have told you a long story; but as I am an enthusiast in the admiration of fine animals of every description, I have thus spun out my epistle. I cannot close however, without mentioning that in addition to the herd of swine, Mr. A. has a choice selection of valuable Short Horned cattle, which he is rearing with great care. They now consist of ten or twelve head, all Herd Book animals. Since selling their former admirable stock at the west, upwards of a year since, where they have been deservedly admired, the Messrs. A. have recommenced this useful branch of stock raising. Success to their efforts; none better deserve it, and few have made greater exertions to excel in this truly noble as well as valuable undertaking.

A WESTERN FARMER.

Old Virginia hard to Beat.

MESSRS. EDITORS—Mr. WESLEY SCOTT of Botetourt County, told me last Saturday, that he had the largest Durham Short Horn cow that he had ever seen of any breed—that she brought a bull calf the 9th of Dec. 1840, and that he sold it to Judge WILLIAM ALLEN, a member of our high court of Appeals, Richmond, for $10 at four weeks old to a day, and that day it weighed 310 lbs. gross weight. He did not weigh it when calved. Now Messrs. Editors, suppose this calf to have weighed 100 lbs. when calved, the daily gain for 28 days would be 7¼ lbs. per day. If Mr. Scott had sold his calf for the big sums that many have been sold for, the world at large would be much more disposed to believe his statement. I believe it for he looks and talks like a man of truth, and his doing business for such a man as Judge Allen is a good proof of his fidelity. He had 38 fine beeves driving to the Richmond market, belonging to Judge Allen. The account of this wonderful calf, at once struck me, and I determined to send it to you for publication in the Cultivator.

Johnson's Springs, Va. E. VALENTINE, P. M.

The Rohan Potato.

We have a letter from our friend J. A. Thomson, Esq. of Catskill, the gentleman who first introduced the Rohan potato into this country, in which he expresses the opinion that much of the prejudice existing against it as a table potato, has arisen from the use of a spurious Rohan, which he avers has been extensively sold and cultivated in some parts of the country, and also from the use of the genuine potato before it was well ripened. He says—"In every instance where I have had an opportunity to test the comparative merits of the Rohan potato, by selecting the potato and having it cooked for experiment, the result has been most unequivocally in its favor, over all other varieties compared with it. The fact is, the prejudice excited against this variety has originated from the imperfect mode of its cultivation. It is a very late growing variety, and should be left in the ground even after the frost has killed the vines, (in order to mature it sufficiently for the table,) and when gathered should be put immediately in a cellar on the bare ground and covered over with sand or evergreens. They will then continue to improve, when treated in this way. I have eaten them the last of June, as solid and firm as in January. From *five* successive seasons that I have cultivated the Rohan potato, I am perfectly satisfied that it is not essential to plant them any earlier than other late varieties; I have succeeded best in planting them after the 20th of May, and up to the 10th of June; somewhat like the turnep, the tuber of this potato acquires almost its whole growth in the last five or six weeks."

From a communication of F. E. Faxon, near Boston, we quote as follows:—"In 1839, I bought two Rohan potatoes weighing 1¼ lbs., from which I cut fifty eyes and planted them one in a hill. They were manured with a shovel full of barn yard manure, and a spoonful of plaster to each hill. The product was two bushels. In 1840, I planted the two bushels in the same manner, and the product was 190 bushels, some of the potatoes weighed 3 lbs. The season was very dry, and I did not have more than half a crop of the Chenango or Blue potato. I do not like them for the table, but for stock I think they are a profitable crop."

Mr. A. C. Sanders of Shushan, Washington Co. N. Y., says—"I raised last summer on a middling quality of land, from 2¼ bushels of seed, 200 bushels, quite a share of them very large, some weighing more than 5 pounds."

Solomon Henkel, Esq. of New Market, Va., under the head "Rohan potatoes no humbug," says—"My son purchased in Philadelphia, one pound of Rohan potatoes, for which he paid 25 cents, in the spring of 1839, out of which I made 24 hills, four feet apart; in each I put two eyes; the product was forty pounds. In 1840, I planted the 40 lbs., and obtained twenty bushels and one half. I weighed 12 of them which weighed 10 lbs. Several of them weighed more than a pound. We find them next best to the Mercer potatoes, as they are good flavored and mealy, and have hopes that they will improve by spring, as they are much better now than when first dug."

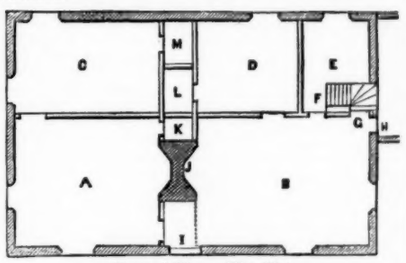
From Mr. J. W. Poinier, Middletown, N. J.—"I planted 16 bushels, obtaining from some potatoes 25 tubers and upwards; they were planted in rows three feet asunder, and the tubers about 15 or 18 inches apart; manured from the barn yard; they came up well, and I calculated on a large crop, but to my surprise when they were dug, there was but 240 bushels. I shall try them again the coming spring, with, I hope, better success. It appears to me they will yield as large or larger crops than we can obtain from any other potato."

"Observer," in allusion to Mr. Guthrie's communication in the Dec. number of the Cultivator, says—"I see Mr. G. has anathematized the Rohan potato, as decidedly as he last year eulogized the Chinese corn. That he has been truly unfortunate in his crop cannot be disputed; that it is a solitary instance of failure so far as I have been able to learn, is also true. Many fields have fallen under my notice the present season, and there has been no complaint from any one as to the *quantity* of the crop. I have grown them three years, and they have uniformly been most productive. As to the *quality* for cooking, or for the table, I should not perhaps dissent so widely from Mr. Guthrie; but for animals I know no reason why it may not be equal to any of the fast growing, large kinds. I must therefore dissent from Mr. G. wholly, when he pronounces the Rohan a humbug, and ranks it with the Chinese corn, and think I am right in presuming that of the many thousands who have cultivated them the past year, he will find few or none who will agree with him in his opinions, either of the sugar beet or of the Rohans."

Mr. Calvin Butler, of Plymouth, (Conn.) alluding to the condemnation of the Rohan by Mr. Guthrie, says—"In the spring of 1839, I procured of Mr. Bull, of Hartford, a peck of Rohans, imported, as I understood, from France. I had them planted on good ground, and well tended, and they produced about 30 bushels; some single ones weighing over three pounds. We had several meals of them cooked, and all the family pronounced them good. The greatest part of what I raised in 1839, were planted by different farmers in this county, and I have inquired of nearly all that had seed of me, and others who have grown the Rohan the past season, and the answer uniformly has been, that they have fully answered their expectations; some single ones weighing over 4 pounds. As it was not convenient for me to plant any potatoes the last season, excepting in my garden, I grew none of the Rohans, and have no interest in them, only that the public should be correctly informed on the subject. The late Judge Buel, than whom no man in the community on that subject would be entitled to more confidence, after several years experience, and a fair candid trial when he had no interest but to give the public correct information, recommended them highly as a good table potato, and a valuable acquisition in our husbandry, (see Cultivator, vol. 5, page 149, and vol. 6, page 66,) and so far as the trial has been made, and made known, the result has been almost uniformly the same. I think therefore they should not be at once abandoned as a humbug in consequence of a failure in one or two particular neighborhoods. I cannot account for these few failures, but am persuaded they are to be attributed to some other cause than the qualities of the potatoe. As to the suggestion of procuring seed from a southern climate, it is to be considered that they originated at Geneva, in Switzerland, a much higher latitude than any part of the State of New-York. They require, it is true, a little longer season to mature in, than other kinds, and that is possibly the cause why they have been condemned as a table potato, having been dug before coming to maturity, in which case any potato would not eat well till they sprout in the spring. Some of my neighbors that had seed of me, say they use them daily for the table, and find them excellent."

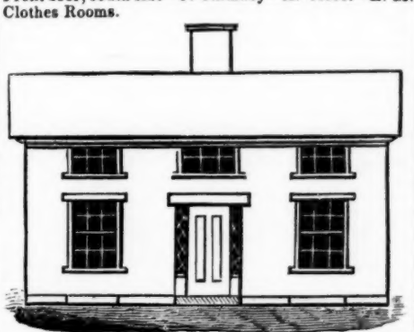
Plan of a Cheap House.

Messrs. Editors—I have been during the year past a subscriber to your excellent paper, and for many years, although a professional man, interested in the culture of the soil, and in all matters of general utility and improvement. I occupy a glebe of about thirty acres, upon which I have made some experiments in farming, and am convinced that scientific investigations may be made highly conducive to the advancement of good husbandry. I do not agree with some that the Rohan potato is to be discarded, or that snow is as good as eggs in flap-jacks; but I do agree with those who maintain that whatever discoveries may be made beneficial to the world, and especially to those who occupy the humble walks in life, should be made public. In accordance with this principle, I send you the plan of a cheap house which I furnished one of my neighbors, combining, as many think, good economy with great convenience.



(*Ground Plan—Fig.* 29.)

A. Parlor, 14 by 14 feet—B. Kitchen, 14 by 15 feet—C. Bed room, 14 by 9 feet—D. Bed room, 9 by 9 feet—E. Buttery, 6 by 6 feet—F. Cellar door—G. Stairs door—H. Door leading to wood house, 12 by 20 feet—I. Front door, south side—J. Chimney—K. Closet—L. M. Clothes Rooms.



(*Front View—Fig* 30.)

Length 32 feet—height 12 feet—windows 5 by 3 feet—door 8 by 3 feet—upper windows 3 by 1½ feet.

One good evidence of the excellence of the plan is the fact that the gentleman to whom I gave it has built twice from it, and has lately remarked that should he build twenty houses they should all be alike.

The following are the dimensions which can be diminished or enlarged as taste or means may dictate. Length 32 feet, breadth 23 feet, height one and a half story, 12 feet. The house contains a good kitchen, parlor, buttery and two good bed rooms below, besides closets and clothes presses. He has moreover an excellent cellar and wood shed, and one large store room, and two bed rooms in the upper story. The whole cost $425.

Of course we do not expect to build a palace for this small sum; but we can build a house good enough for any young man who has his own fortune to make—and who prefers a neat, snug tenement of his own to the looking up of a new habitation every year.

For a common laborer's cottage, or for a substantial farmer's more expensive dwelling, the plans given during the past year are very good. As a medium between the two, for the accommodation of those who do not wish to appropriate more than four or five hundred dollars for that object, I think the enclosed plan will be found very convenient. A piazza in front, one-third the height of the house, would be found very useful, without adding more than $25 to the expense.

I would merely add that building materials do not differ much in cost here, from the same articles throughout New-England or New-York. The price of labor also is about the same. Very respectfully yours,

Lanesboro,' Mass. Jan. 5, 1841. S. B. SHAW.

Rohans and Merinoes.

Messrs. Editors—If you deem the following account of a trial of Merinoes *versus* Rohans, worthy of the space it will occupy in your valuable journal, you will please publish it.

When I planted my potatoes last spring I cut my Rohans into pieces containing two eyes each, and put three pieces or six eyes in each hill; adjoining the Rohans I planted a row of Merinoes in the same manner. Upon digging them a few days since, I found the row of Merinoes, twenty-two hills, gave a bushel and a peck. The row of Rohans, likewise twenty-two hills, gave the same quantity and about six or seven middling sized potatoes over.

I then dug a square rod of Merinoes that gave a bushel and a half; the adjoining square rod of Rohans, containing the same number of hills, gave a bushel and three-eighths. On another side a square rod of Merinoes gave a bushel and five-eighths, and a like square of Rohans adjoining gave a bushel and one-eighth.

These potatoes all grew on the same kind of land and were treated in precisely the same manner, except that the two squares of Merinoes were planted in the usual manner with whole potatoes and the Rohans cut and planted as above stated.

You will perceive that these potatoes gave a poor yield, which was owing to the uncommon dryness of the season. In many cases in this part of the country the potato crop is next to nothing. My Rohans appeared to have suffered much less from the drouth than the Merinoes and others. At digging I found them furnished with very long and fibrous roots which may account for the fact.

I procured last fall a barrel of Rohans from the late Judge Buel, of which I lost about half in consequence of their being sent to me in an old salt barrel. I mention this to caution those persons who have potatoes or other roots to transmit, against packing them in any vessel that has contained salt.

PIERRE V. C. MILLER.

Shawangunk, Ulster Co. Oct. 17, 1840.

Blossburgh Coal.

Messrs. Editors—I herewith take the liberty to send you, for your gratification, a small parcel of Blossburgh Coal: As this coal is destined to assume a rank of importance in this state, for fuel in domestic economy, and in the manufacturing and mechanic arts, and its ashes for manure, a few facts concerning it, may perhaps be interesting.

The mines from which this coal is taken, are situated on the head waters of the Tioga River, in Tioga county, Pennsylvania. Here, also, in the heart of the coal region, is situated the village of Blossburgh. From the mines, the Tioga river and valley descend northwardly into the state of New-York; the river emptying into the Chemung, near the village of Corning in Steuben county.

The villages of Corning and Blossburgh are about 38 miles distant from each other; but are united by a rail-road running down the valley. A depot for the sale of coal is established at Corning, where the coal is delivered by the Arbon Coal Company, and sold at $3.50 per ton of 2,000 lbs. Corning is situated at the head of the Chemung canal, and is accessible to boats from all parts of the state. It is distant from Albany 298 miles, from Troy 291, Whitehall 353, Utica 198, Syracuse 128, Oswego 166, Geneva 73, Rochester 158, and Buffalo 253.

At our agency in this city, No. 37 Columbia-st. for the sale of Blossburgh Coal, the price of the coal is $7 per ton by the cargo; and the price at any other point will be the same as at Corning, with the charges of freight and toll only added.

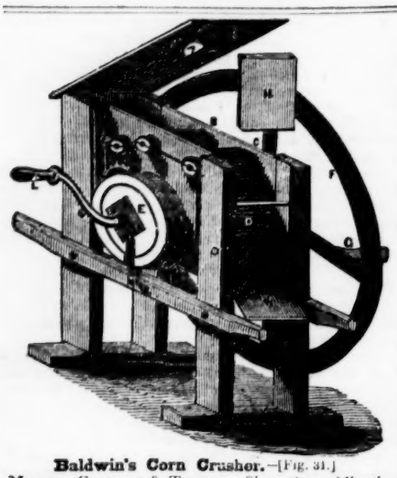
This coal is an excellent article for domestic use, kindling very easy and burning freely with a clear white flame. Every ton brought to the city of Albany, pays a dollar toll to the revenues of the state.

It is decided by the best mechanics in Albany to be a very superior coal for their use for smithing, and for manufactories. The Agent of the Albany Iron and Nail Works, who has thoroughly tested its quality for making iron, says the result of the trial proves it to be superior in strength to any bituminous coal he ever used. On an average of 38 tons, he found 930 lbs. of the Blossburgh coal equal in efficiency, in the quantity of iron it produced, to 1120 lbs. of any other; showing a superiority in the Blossburgh coal of 15 per cent.

The opening of the Blossburgh coal mines is a great accession to the wealth of this state. The supply is inexhaustible. In an area of 22,000 acres, it is estimated that there is coal enough to supply 170 thousand tons a year for 500 years.

This coal was discovered at an early period by one Benjamin Patterson, while crossing the country with a party of German emigrants. In the course of a hunting excursion, he found the coal on the top of a hill, where the wind had blown over the trees by the roots. But it was Dr Witt Clinton who first called public attention to the subject. In his message to the Legislature in 1827, he says:—"Bituminous coal has been found in the state of Pennsylvania, within 20 miles of the state line, near the Tioga river, which when the Seneca Lake shall be opened, can be delivered in Albany by means of the Erie canal, on very reasonable terms."

Yours, very respectfully, WM. YATES,
Agt. A. C. Co. No. 37 Columbia-st. Albany.



Baldwin's Corn Crusher.—[Fig. 31.]

Messrs. Gaylord & Tucker—Since the publication of a description of Baldwin's Corn and Cob Crusher, (Cult. vol. 7, p. 196,) we have received a number of letters from your subscribers, inquiring relative to their merits, which has induced us to write again on the subject, and add to our description a cut of the machine—a drawing of which you will find enclosed, (fig. 31.) The numerous worthless agricultural implements, &c. that have passed under our notice, has convinced us that it will require extra exertion to introduce into general use, any machine, however useful it may be, without assuring the agricultural community that they will be guarded against loss by machinery proving worthless, and directly opposite to representation; we have, therefore, determined in regard to this machine, as well as any other we may in future recommend, to guarantee them to perform well, and be as perfect as represented. In every case where they fail, with ordinary care and management, such may be returned, and the cost refunded to the purchaser. The fact that three bushels of cobs possess as much nutriment as one bushel of corn—that cattle and swine fed on this mixture thrive much faster, and are kept in a more healthy condition than when fed on corn alone, is now too generally known to require us to say any more on the subject. The actual saving to the farmer (taking into consideration the corrective tendency of this description of food,) by using this machine, is about 35 per cent, an item in agricultural economy not to be disregarded by the frugal husbandman. But to the description of the cut:

B and C represent two fluted cylinders, placed horizontally, through which the corn and cob is first passed; these put it in a proper condition to pass through two finer fluted or ratched cylinders D, which are placed immediately under cylinders B and C; and partially rest on a cast iron ratched concave, and which pass the ground corn and cob out at slide K. A, the hole through which the ear of corn is passed into the cylinders B and C. J and H, the cap or cover and end board, thrown up to show the interior of the machine. F, a heavy cast iron balance wheel. E, the driving pully, 14 inches in diameter, which should be driven by a band wheel or drum of sufficient diameter to propel it 250 revolutions per minute. L and G, crank to turn the machine by; the labor and speed required, however will not justfy manual power to be applied unless very small quantities are to be crushed. The cylinders and concave are enclosed between two substantial cast iron sides and a strong wooden frame, all firmly bolted together and secured in the center of the frame by two wooden braces M, which are extended at the ends, and answer to remove the machine by. The price of this machine as before stated is $65. Horse powers, suitable for two or four horses, will be furnished with the above machines at $100 to $125 each, and driving bands $10.

Corn Husker and Sheller.

We are testing and about to manufacture Col. Goldsborough's Patent Corn Sheller and Husking Machine, which will shell about 1,200 bushels of corn per day, or husk and shell 700 bushels. So soon as we are satisfied with its performance, strength, &c. we will write you a full description.

We have in our agricultural warehouse several other new and valuable implements of husbandry, which we will describe in some future number of the Cultivator.

Baltimore, Jan. 14. R. SINCLAIR Jr. & Co.

Hay, Cotton and Tobacco Press.

Esteemed Friends—On seeing in the Cultivator an inquiry made for a portable hay press, I answer that I have one, supposed to be of the best construction, and is portable by four horses. Price $250, without the wheels or running gear on which it is drawn. It will answer equally well for cotton or tobacco as well as for hay, which information you can give through your publication. By the 3d mo. (March,) an agent is expected to go through Virginia, who might call and give such satisfaction as is required in the case, to such gentlemen as may desire to obtain such a press.

JEREMIAH BAILEY.

Wilmington, Del. 1 mo. 21st, 1841.

Smoking and Preserving Hams.

Messrs. Editors—It is now but little more than a year since I first got a peep at the Cultivator. And although the general appearance of my farm and stock may not as yet indicate any very sensible effect, I am frank to say your sheets have afforded me both instruction and amusement. I have as yet neither bulls, cows, sheep or swine worth bragging about; but as this is about the season to prepare and smoke our annual stores of hams, I will venture to tell you, and if you please, your readers, how I manage this business. In the first place, I take some suitable cask, perhaps a half hogshead tub, and sprinkle a few small lumps of salt upon the bottom. Then pack in the hams, the skin downwards upon the lumps of salt, the shoulders also, filling the spaces between with cheeks, legs and tongues, making the top about level. Then pour in the brine, made of about an ounce of salt to a pound of meat, and an ounce or two of salt petre to 100 pounds of meat, with water only enough to dissolve them, and there let all rest *two* or *ten* weeks, according to convenience. When ready for smoking, I knock to pieces some old stump, about enough decayed to make a smoke without much heat, and smoke a day or two, and omit about as long; smoking and drying without smoke alternately, some three our four weeks.

To keep hams through the warm season, I formerly packed them in ashes; but finding it an unpleasant and nasty business, I rejected it. Next came canvass bags and whitewash, which were soon abandoned. A third method was to hang them in a cask tight enough to keep the flies and rascally mice out. This proved a better way than either of the preceding; but in damp weather the meat would get moldy. My present method is to pack them in clean dry oats; and in this way I can take out a piece at pleasure, which will be clean and bright. In the fall I mix the oats with corn and grind them, with which I make more ham. Thus nothing is wasted.

I intended to communicate some notions of an old farmer respecting the silk culture, surface spread manure, &c. but want of time obliges me to postpone to a more convenient season. ROBERT WILSON.

Fairfield. Ct. Feb. 11, 1841.

Extraordinary Secretion of Milk.

Messrs. Editors—Having seen an article in the Cultivator of November last, with the caption, *Extraordinary Secretion of Milk*, and having been personally knowing to a circumstance somewhat similar to some of those mentioned in that article, I have thought best to give a brief sketch of the facts. Many years since, I was directed by an uncle, with whom I was then living, to turn a two year old colt into a back pasture, by which means she would be, not only out of sight, but alone and apart from any other domestic animal. At this time the grass had began to show quite a green appearance, it being about the middle of May. In about six weeks from this time, I discovered quite an enlargement of the udder; supposing the cause to proceed from some injury, I hastened to inform my uncle; who, with myself and a third person, repaired to the lot without delay, and after a thorough examination, could find not the slightest injury whatever, but on the contrary, free from every appearance of having had an application of means being used calculated to produce milk; and which was provel more fully by the exertions on the present occasion of stripping, which was continued for some time before the milk came; from this time until late in the fall after, she was milked daily, giving a quart at a time by actual measurement, when with some care she was dried off. D. P. S.

Oriskany, Dec. 17, 1840.

Preservation of Roots in Winter.

To the Editors of the Cultivator—Your valuable correspondent, Mr. J. M. Garnett, in his account of preserving carrots, potatoes, &c., recorded in your number of the Cultivator for the present month, says—"In regard to Irish potatoes, a still thinner covering of earth than the one just mentioned, suffices with us to preserve them from rotting. Indeed it would seem as if they could freeze and thaw several times, during winter, without being destroyed, provided they are covered with earth all the time; for we often find them near the surface and perfectly sound, in the spring, when spading up the ground in which the crop had grown during the previous season. There they must have undergone freezing and thawing whenever the earth was in either state, as it often is to a much greater depth than the potato roots ever extend. Why those roots should always be destroyed when they freeze *above ground*, and not suffer equally when frozen *under ground*, is a matter of which I have never yet seen any explanation; it is among the numerous mysteries in vegetable physiology for the cause of which we have still to search."

The reason why potatoes, apples, &c. become soft, and rot when frozen and then thawed suddenly, uncovered and in open air, is, the sudden thawing. You may put a heap of apples on the floor of a room, or other dry place, where they will freeze perfectly hard, and if covered close with any thing that will exclude the air, so that when the weather becomes warm enough to thaw, the apples will remain sound and uninjured, after they are thus closely thawed. The cover may be of the coarse tow of flax, or any article that will cover them close and exclude the air. So apples may be packed in a tight barrel, if full and headed up so as to exclude the air, they may be suffered to remain so in a garret or any dry place where it freezes hard, and they will be found sound and free from injury, if the barrel remains tight till they are *thoroughly thawed*. It is the sudden thawing that causes the apples or other vegetables to become soft and rot.

So the fingers on your hand, if frozen, and you expose them to sudden heat by warming them at the fire, and thus suddenly thaw them, the flesh will mortify and sluff off. But, if you freeze your fingers or other limbs, and put them in snow, and rub gently till they thaw; or if put into a pail of water just drawn from the well, which will be less cold than your frozen fingers, they will thaw slowly, and suffer but little injury.

So the early autumnal frosts in September, if the morning after the frost is cloudy, the frost will be slowly drawn from the frozen vegetables, and they are not injured; but if they receive the rays of the early and clear sun it thaws them so suddenly, that they will hang their heads and perish. If wet with water from the well, long enough to extract the frost, before the sun shines on them, they do not suffer.

Onions are a difficult root to keep in winter. If they are put in a cellar warm enough to save from frost, they will vegetate and be deteriorated. I put them in the warehouse, where they freeze as hard as if out of doors. If in a heap, I cover them close with some old clothes, or any thing that covers close, to exclude the air. The same if in boxes or casks. They freeze hard, but it does not appear to injure them for present use, if thawed by putting them into a pail of fresh drawn water, to draw out the frost just before cooking them. Onions thus kept, will be in good condition in the spring, after thawing under cover from the air.

I put parsneps, carrots, beets, &c. in boxes or casks, and then cover them with potatoes, which preserves them from drying. Respectfully, DAVID TOMLINSON.

Schenectady, Feb. 13, 1841.

TO CORRESPONDENTS.

Though we have this month published at length or in a more or less condensed form about fifty communications, we have at least a dozen more which ought to have had a place this month. "Letters from the West, No. 5," came too late, as did the favors of Mr. Weeks and Mr. Morris. Beside these, we have on hand a large number of articles from correspondents, for which we shall make room as fast as possible. Among these are—Reply to Messrs. Guthrie and Bement on the Sugar Beet, by A. B. Allen.—Reply to "R." on steaming roots, by C. N. Bement.—Draining, by Henry Stephens.—Experiments in Maryland, by D. G. Weems.—Culture of Indian Corn, by Elias Sheldon.—Stables with and without Floors, by L. Durand.—On making Wine, by Schoolmaster Abroad.—Comparative value of Oxen and Horses, by R. L. Allen.—The Farmer's Cottage House, by S. W. Jewett.—Culture of Indian Corn, by J. Armstrong.—Product of Three Acres, by C. Allan.—Grafting the Peach, by C. G. Page.—Winter Butter, by W. S. Wait.—On Bees, by J. M. Weeks, and many others.

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